EVENT REPORT

In-person Roundtable Meeting on the Digitalisation and Medication Management - Europe and South Africa Collaboration (INTERACT)

14 March 2024
Sandton Convention Center
Johannesburg, South Africa

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1 EXECUTIVE SUMMARY

The in-person roundtable event aimed to convene key stakeholders and experts in healthcare, alongside representatives of healthcare professionals directly engaged in medication management and patient safety initiatives in South Africa.

This report summarises the proceedings of the roundtable. It explores issues around establishing an Alliance of key stakeholders within the South African healthcare ecosystem to advocate for the implementation and upscaling of digital medication management systems and tools in South African healthcare settings. It reports that while an Alliance can provide a space to identify needs, more stakeholders should be identified and involved, and their interests and priorities explored.

The insights generated from the roundtable consultation are intended as a starting point to inform the approaches for building a South African Alliance on digitalising medication management pathways. The report also highlights potential areas for future actions, collaborations, and research in the field of digitalisation of medication management and medication error reporting, setting the stage for ongoing efforts and initiatives.

2 INTRODUCTION AND BACKGROUND

Medication management and patient safety

Medication management in hospitals is a complex process, covering ordering, receiving, storing, prescribing, compounding, distributing among wards and departments, dispensing and administration to patients, and monitoring. Often referred to as the medication management pathway, this process involves multiple activities and various clinical groups to manage the safe and effective use of medications for each episode of care. Therefore, digitalisation and automation to support medication management pathways in hospitals are critical for patient safety, healthcare professionals' wellbeing and visibility of the demand and supply of medication stocks, by minimising errors, improving accuracy, facilitating seamless communication among healthcare providers, and empowering both healthcare professionals and patients alike.

The digitalisation of medication management pathways offers opportunities to manage treatment activities in hospital settings in a transparent, effective, and simple way. It enhances productivity, and reduces waste by automating manual tasks, streamlining processes. It provides opportunities to break down supply chain silos and shorten medication supply chains. Moreover, the digitalisation of medication management pathways is key to providing real-time, accurate demand and inventory data in hospitals. Therefore, digitalisation and automation to support medication

management pathways in hospitals are critical for patient safety, healthcare professionals' wellbeing and visibility of medicine demand and supply.

The dIgitalisation aNd MedicaTion ManagEment - EuRope and South Africa CollaboraTion (INTERACT)

Since May 2023, EHMA has been exploring the potential to build an intercontinental exchange of practices by supporting local partners to build an Alliance of South African patients, hospital, healthcare professionals and industry representative organisations to advocate for the implementation and upscale of digital medication management systems and tools in South African healthcare settings; and by sharing best practices between Europe and South Africa.

INTERACT aims to establish a collaboration focusing on 'Digitalisation of hospitals medication management pathways' in South Africa. The primary objectives of this collaboration are to improve:

1. Patient safety;
2. Healthcare professionals' well-being;
3. Medicine stock visibility in both South Africa and Europe.

So far, thirteen key stakeholder organisations from across South Africa's health ecosystem have expressed an interest in joining this collaboration, which includes local South African partners representing patients, public and private hospitals, pharmacists, public health professionals and industry partners. *This collaboration is supported by an educational grant from Becton, Dickinson and Company (BD) who has no influence or editorial control on any outputs which will be decided by the Alliance partners.*

EHMA members, experienced hospital and health managers, seek to enhance patient safety and care delivery. Our interest in South Africa lies in mutual learning and knowledge exchange to benefit both EHMA and our South African partners. We aim to promote health management improvements through shared best practices without requiring access to patient or clinical data. This project extends our collaborations in Europe, providing valuable insights into global healthcare's digital transition, especially in hospital medication management pathways.

EHMA's work promoting patient safety from Medication Errors

Under the leadership of EHMA, the AlliancE for Digitalisation of hosPitAls' MediCation Management PaThways (EPACT) was established in 2022 fostering multistakeholder collaboration to advocate for the inclusion of the digitalisation of medication management in EU policies, such as the reformed Pharmaceutical Legislation, EU Digital Strategy, EU4HEALTH Programme and the European Health Data Space (EHDS). Besides advocating for investments in the digital infrastructure most needed to modernise medication management pathways in hospital settings, EPACT aims to develop solutions to reduce patient and health professional harm from medication errors and increase healthcare professional wellbeing.

Upon broader examination, EHMA has noted similar challenges regarding the reporting and traceability of medication errors within hospitals in South Africa. Certain hospitals in South Africa have implemented medication traceability systems highlighting prospects for inter-continental knowledge exchange and cooperation on this important global health concern. In order to improve

patient safety, promote healthcare professionals' wellbeing and enhance the traceability and visibility of medicines in both South Africa and Europe, EHMA aims to establish an intercontinental exchange of knowledge and practices. Additionally, this partnership can be utilised to facilitate the dissemination, expansion and implementation of digital solutions within the healthcare sector in South Africa.

As the final step in the first phase of this project, which aimed at co-creating and finalising an advocacy roadmap, the roundtable gathering played a pivotal role in advancing ongoing discourse regarding the identification of and engagement with all stakeholders to be involved and the establishment of specific steps towards executing an effective advocacy campaign. This report therefore is a summary of the roundtable discussions and EHMA is committed to leveraging the insights gathered, to formulate a comprehensive concept note outlining the future steps of our collaboration.

2.1 ROUNDTABLE ORGANISATION

This in person roundtable event themed 'the Digitalisation and Medication Management - Europe And South Africa Collaboration (INTERACT)' was organised and facilitated by the European Health Management Association (EHMA) on 14 March 2024. EHMA hosted and organised it alongside the SAPHEX 2024 at the Sandton Convention Center in Johannesburg, South Africa, with the participation of thirteen health experts with diverse and vast expertise in the healthcare sector within South Africa. It delved into establishing a collaboration on digitalisation and medication management in hospitals to support improvements in patient safety, healthcare professionals' wellbeing and the availability of medicines in South Africa and Europe.

Prior to this roundtable, EHMA had conducted individual online calls with leaders of several key stakeholder organisations in South Africa exploring their interest in collaborating with EHMA on the topic of digitalisation of medication management pathways in hospitals. Subsequently, on 17 November 2023, EHMA hosted an online meeting with interested partners from South Africa. The objective was to bring together and facilitate introductions between interested South African parties and organisations; gather additional information on specific challenges and opportunities for the digitalisation of medication management, which would form the creation of an advocacy roadmap to enhance improvements in hospital's medication management pathways and explore logistical arrangements and preferences for an in-person roundtable event.

2.2 ROUNDTABLE MEETING OBJECTIVE

The aim of the roundtable meeting was to gather information about digitalisation and medication management, aimed at understanding most effective actions and steps to advocate for improvements in medication availability, improvements for patient safety and healthcare professionals' wellbeing from medication harm in hospital settings in South Africa.

1. Provide an overview of European work EHMA is involved in;
2. Re-introduce the collaboration's goal and objectives;
3. Identify more stakeholders to be involved in the Alliance;
4. Consider challenges and barriers to establishing an Alliance in South Africa;
5. Explore some activities that the Alliance could carry out.

The meeting Agenda is provided in Annex I.

3 MAIN FINDINGS

3.1 OPENING REMARKS

Prof Dr Sandra C. Buttigieg, MD, EHMA President welcomed participants to the meeting. She provided an overview of EHMA, a membership-based association for health management based in Brussels representing members from across the WHO European region, our mission of promoting excellence in health management for a healthy Europe, as well as our vision and values. She stressed that one key organisational priority is ensuring patients can access safe, quality care in hospitals and reiterated that EHMA is committed to promoting excellence in health management at European level and beyond through our European Union and privately funded projects.

Following Prof Buttigieg's welcome, an introductory roundtable started, co-facilitated by **Ms Federica Margheri, EHMA Interim Executive Director** and **Ms Faith Nganyi, EHMA Policy Officer**. Each participant briefly introduced themselves, their affiliated organisations, expressed their interests as well as what they hoped to achieve at the end of the roundtable.

3.2 THE EUROPEAN COLLABORATIVE ACTION ON MEDICATION ERRORS AND TRACEABILITY (ECAMET) PATIENT SAFETY PROJECT CASE STUDY PRESENTATION

To set the scene and provide an overview and understanding into EHMA's involvement in European initiatives, Mr **Mike Isles, Executive Director** of the European Alliance for Access to Safe Medicines' (EAASM) delivered a presentation on the European Collaborative Action on Medication Errors and Traceability (ECAMET) Alliance, and its patient safety project. The ECAMET Alliance consists of 21 organisations, including patient safety groups, scientific organisations, and healthcare professionals including hospital pharmacists and IT managers. Led and coordinated by EAASM, ECAMET's patient safety initiative aims to reduce medication errors and advocate for the implementation of

comprehensive electronic traceability systems in acute care settings across Europe and at the national levels. This initiative is geared towards enhancing patient safety and the overall quality of healthcare delivery.

One of the key initiatives undertaken by ECAMET was the development of a comprehensive pan-European survey, targeting chief hospital pharmacists from 317 hospitals. This survey encompassed 37 primary research questions focusing on the prevalence of medication errors, levels of awareness and education, and existing traceability systems within acute care settings. Emphasising the pivotal role of medication traceability in mitigating medication errors, Mr Isles highlighted that the survey results led to the production of 13 country reports, a private hospital report, and a consolidated report. Furthermore, specialised reports focusing on oncology and intensive care units (ICU) were also generated as part of this endeavour. These reports are accessible on the official website www.ecamet.eu, along with an interactive dashboard for further exploration and analysis.

Additionally, ECAMET produced a White Paper titled '*The Urgent Need to Reduce Medication Errors in Hospitals to Prevent Patient and Second Victim Harm'*. This White Paper outlines ECAMET Alliance's four-point call to action directed towards European, national, and regional authorities, as well as all relevant stakeholders involved in healthcare.

Through these initiatives, the ECAMET Alliance, where EHMA is a member, aims to drive meaningful change and promote safer medication practices in hospital settings across Europe, fostering a culture of patient safety and improving quality standards. In conclusion, he proposed that if South African partners find it appropriate, the ECAMET survey could be replicated and implemented in South Africa. This would allow for a comparison of the results with those obtained in Europe.

3.3 ROUNDTABLE DISCUSSION

3.3.1 MEDICATION ERROR REPORTING IN SOUTH AFRICA

The use of medication can lead to adverse drug events (ADEs), which encompass "*any harm stemming from medical interventions and procedures associated with a drug"*. ADEs encompass adverse drug reactions where no mistake occurred and complications from medication errors. A medication error occurs when a medicine is inappropriately prescribed, prepared, dispensed, or administered to a patient, and may also involve monitoring errors.

In South Africa, initiatives are in place to engage both patients and healthcare service providers on medication safety issues. One initiative is the Med Safety App, which allows for the reporting of suspected adverse drug reactions (ADRs) to SAHPRA. Additionally, events can be reported through the e-reporting option on SAPHRA's website. SAPHRA, an entity of the National Department of Health mandated by law to oversee the safety, quality, efficacy, and performance of all health products it regulates, is responsible for investigating, monitoring, analysing, and acting upon all adverse drug events, including medication errors, in South Africa. Reports from SAPHRA's Vigilance Unit are submitted to the WHO Global Individual Case Safety Reports (ICSRs) Database System, VigiBase.

During our roundtable discussion, several pertinent issues were identified regarding medication errors and reporting in South Africa. Firstly, the **availability of reliable data on medication errors** in South Africa emerged as a significant concern. Data is available, but it is not published. It was noted that while approximately 16% of all deaths in the country include cases associated with harm from medication, linked to instances of self-ingestion and suicide. Therefore, there is a need for a more robust and efficient system to disaggregate this data and accurately quantify medication errors.

Secondly, the **quality of available data** was highlighted as a crucial concern. The prevalence of human and self-reported data, which may not always be reliable, was identified as a challenge. While there are small pockets of information regarding polypharmacy, it was acknowledged as an important contributory factor for quantifying medication errors due to its more trustworthy nature. Despite its associated costs, there was a suggestion for a review paper to consolidate all available information from polypharmacy. However, there is a need to conduct audits of existing data to further explore its quality and assurance mechanisms for medication error reporting.

Thirdly, it was observed that **reported data on medication errors remains limited** and is not readily accessible to the public. While pharmacovigilance data exists, data specifically focused on medication errors is lacking, with each organisation having its own reporting processes in place. Overcoming barriers to reporting medication harm and ensuring a safer reporting process were underscored as important considerations to **foster open communication** about errors. Additionally, the potential for publishing this data was discussed, but it was noted that further exploration of reporting guidelines and strategies to encourage healthcare professionals to report medication errors is essential.

3.3.2 BUILDING A SOUTH AFRICAN ALLIANCE FOR ADVOCACY

To form an effective Alliance to advocate for digitalisation of medication management pathways in South African hospitals**, all key stakeholders must be identified and involved,** including but not limited to public health sector players, private hospital groups, health economists, corporate pharmacists, professional bodies, the National Department of Health (NDoH), private companies and innovators, non-governmental organisations (NGOs), academic institutions, patient and civil society organisations. Some key stakeholders mentioned above include the different Councils at the national levels such as the South African Nursing Council and the South African Pharmacy Council (SAPC).

The importance of **involving decision-makers from the outset was highlighted**, with a specific emphasis on engaging all heads of departments within the NDoH rather than relying on a single representative. It was underscored that even if certain individuals may not actively contribute, their inclusion is paramount to ensure comprehensive representation and buy-in throughout the process. Inclusivity from the initial stages is crucial for fostering ownership, promoting transparency, and ultimately achieving successful outcomes in initiatives related to healthcare advocacy and policymaking. Therefore, beyond the stakeholders EHMA has already been engaging with, a comprehensive mapping exercise should be conducted to ensure inclusivity and representation across all relevant stakeholders. Once stakeholders are identified, **understanding their respective**

interests and priorities will be pivotal in fostering collaboration and driving the Alliance's objectives forward.

The Presidential Health Compact was mentioned as an avenue to explore advocacy utilisation method. This platform presents an opportunity to leverage advocacy efforts effectively by engaging with relevant stakeholders at the highest levels of government. Aligning with the objectives of the Presidential Health Compact, advocates can amplify their messages and drive meaningful change in the healthcare sector.

3.3.3 CONDUCTING A SURVEY FOR BASELINE INFORMATION AND A NEEDS ASSESSMENT

Guidelines by the National Health Research Ethics Council (NHREC), 'Ethics in Health Research: Principles, Processes and Structures – 2015' contain the South African national policy for conducting health research ethically and responsibly. Furthermore, ethical research review, under the South African National Health Act (NHA), Act No 61 of 2003, requires that proposals to conduct health research[1] must undergo independent ethics review before the research is commenced. In line with these guidelines, conducting any surveys in South Africa targeting healthcare professionals, will require the ethical approval from independent registered Research Ethics Committees (RECs). It was pointed out that this approval could take six months. Provincial research committee approval requirements may also apply. Ultimately, it is crucial before any professional body distributes a survey to their members, proof of ethical approval is obtained. This also applies for any publication of the findings.

While developing a research study protocol, it is also important to consider the length of the survey and its duration as the Continuing Professional Development (CPD) guidelines might apply, depending on the professional body. As an example, if the survey takes an hour, it could earn CDP points. The survey should be kept simple with non-intrusive questions. However, it should not be comprehensive asking for qualitative data. The importance of **conducting a needs analysis through another roundtable discussion was emphasised, followed by publication of the findings** and then moving on to the next step.

3.3.4 KEY RECOMMENDATIONS AND CONCLUSIONS

As part of the roundtable discussion, participants identified the following issues as key considerations and areas requiring further assessment and action.

The disparities between and within South Africa's public and private healthcare sectors present significant challenges to achieving holistic patient management within the healthcare system. In some private hospitals advancements such as traceability systems and digitalised medication management have improved patient care. However the public sector lags behind, relying on manual

[1] The National Health Act defines "health research" as any research that contributes to knowledge of: biological, clinical, psychological, or social welfare matters including processes as regards humans; the causes and effects of and responses to disease; effects of the environment on humans; methods to improve health care service delivery; new pharmaceuticals, medicines, interventions and devices; and new technologies to improve health and health care.

processes, often conducted in silos, and facing challenges of resource constraints and outdated infrastructure. The absence of shared best practices underscores the urgent need for system-wide harmonisation. **Efforts to harmonise practices such as medication management across the health system and promote knowledge sharing of best practices are urgently needed**. Bridging these gaps, including legislative and policy disparities such as the National Health Insurance (NHI), requires collaborative efforts towards standardisation and interoperability.

Evaluating existing systems is crucial as it lays the foundation for adopting digitalisation in healthcare. It is important to recognise that digitalisation is not solely about technology but also encompasses the digital skills and literacy of healthcare professionals. Therefore, education initiatives aimed at upskilling and reskilling professionals should be considered to reduce knowledge gaps. Involving professional bodies in these initiatives can further enhance their effectiveness. Additionally, utilising the NDoH's existing roadmap for digitalisation provides valuable insights and opportunities for alignment with broader healthcare objectives. Rather than reinventing solutions, **efforts should focus on integrating existing systems and developing a comprehensive roadmap. This roadmap should encompass a public health perspective, consider cost implications, and demonstrate the health economics benefits of digitalisation.** By taking a holistic approach that addresses technological, educational, and strategic aspects, digitalisation can drive meaningful advancements in healthcare delivery while ensuring patient safety and sustainability.

While engaging with the NDoH is pivotal, the approach adopted significantly influences the success of advocacy efforts. It was emphasised that presenting solutions in a non-threatening manner tends to be effective, along with linking proposals to a launch whenever possible. The DoH is generally receptive when presented with a well-defined proposal and solution. Therefore, **it is imperative to define a minimum viable product that meets the department's requirements.** A robust medication management system for example could consider whether it can manage patient admissions and discharges, procurement, ordering, record medicines accurately, ensure visibility of stocks, prescriptions, enable pharmacists to dispense medicines, and facilitate patient referrals. Ultimately, securing buy-in from the NDoH necessitates actionable implementation plans rather than merely conducting studies.

Acknowledging the autonomy in decision-making between the national and provincial levels is essential, as buy-in obtained at the national level may not automatically extend to the provincial level. Each level operates independently and may have distinct priorities and procedures. Therefore, where possible, strategies for securing support and endorsement for initiatives must be tailored to address the specific contexts and dynamics at both the national and provincial levels. This recognition underscores the need for comprehensive engagement strategies that account for the complexities of multi-level governance structures within the South African healthcare system.

4 CONCLUSION

In conclusion, the roundtable discussion has highlighted the significant opportunities for advancing patient safety, medication availability, and healthcare professionals' wellbeing in both South Africa and Europe through collaborative efforts. The establishment of a South African alliance to advocate for the implementation and upscaling of digital medication management systems presents a promising avenue for progress. Participants have emphasised South Africa's openness to innovation as it strives towards achieving Universal Health Coverage under the National Health Insurance bill.

However, navigating the landscape of healthcare reform and digital transformation presents multifaceted challenges. Disparities between the public and private health sectors, legislative gaps, data accessibility issues, and the need for improved digital skills among healthcare professionals are among the barriers to overcome. Nonetheless, these challenges also serve as opportunities for meaningful change.

Moving forward, actionable steps have been identified, including thorough stakeholder identification, needs assessment, roadmap conceptualisation, and engagement strategy refinement. It is imperative to align these efforts with the existing priorities and strategies of the Department of Health and to foster collaboration.

As we conclude this initial phase, further research, and concerted action are needed to build on the foundation laid during this roundtable discussion. This process extends beyond a single meeting and requires ongoing commitment and collaboration. The insights gained from this gathering serve as a catalyst for informed decision-making and strategic planning in advancing our shared goals. Moving forward, continued dialogue and collaboration will be essential for driving meaningful progress and realising the full potential of this partnership.

5 ANNEXES

ANNEX I. MEETING AGENDA

Time	Duration	Agenda Item
09:00 - 09:15	15 Minutes	Welcome and Introductions
09:15 – 09:30	15 Minutes	ECAMET Study Presentation **Mike Isles**, Executive Director, EAASM
09:30 – 10:30	60 Minutes	Presentation of the INTERACT initiative **Federica Margheri**, Interim Executive Director, EHMA **Faith Nganyi**, Policy Officer, EHMA
10:30 – 10:45	15 Minutes	Break
10:45 – 11:50	65 Minutes	Roundtable discussion **Federica Margheri**, Interim Executive Director, EHMA
11:50 – 12:00	10 Minutes	Concluding Remarks **Federica Margheri**, Interim Executive Director, EHMA

ANNEX II. LIST OF PARTICIPANTS AND FACILITATORS

PARTICIPANTS

NAME	POSITION AND ORGANISATION
Prof Timothy Hardcastle	Medical doctor & trauma surgeon. Vice-chair of the association of surgeons and the president of FoSAS
Ms Kelly du Plessis	Founder and CEO, Rare Diseases South Africa
Prof Razeeya Khan	Lecturer at WITs and member of South African Society of Oncology Pharmacists (SASOPh) SASOPh
Prof Pamela Naidoo	CEO, Health & Stroke Foundation South Africa
Mr Nhlanhla Mafarafara	President, South African Association for Hospital and Institutional Pharmacists (SAAHIP)
Dr Seshnee Moodley	Vice- President, South African Association for Hospital and Institutional Pharmacists (SAAHIP)
Ms Nirasha Singh	Medication Safety Lead, Netcare
Ms Leith Kwaan	Clinical Affairs Manager, SA National Bioproducts Institute
Dr Belinda Meyer	Consultant
Mr Hannes Van Der Merwe	Senior Manager Actuarial & Analytical Solutions, Deloitte
Mr Rudi de Koker	Project Manager, Strategic Health
Mr Siraaj Adams	Project Manager, Strategic Health

CASE STUDY PRESENTOR

NAME	POSITION AND ORGANISATION
Mr Mike Isles	Executive Director, the European Alliance for Access to Safe Medicines (EAASM)

EHMA STAFF

NAME	POSITION
Ms Federica Margheri	Interim Executive Director
Ms Faith Nganyi	Policy Officer
Ms Eleonora Varntoumian	Policy Officer