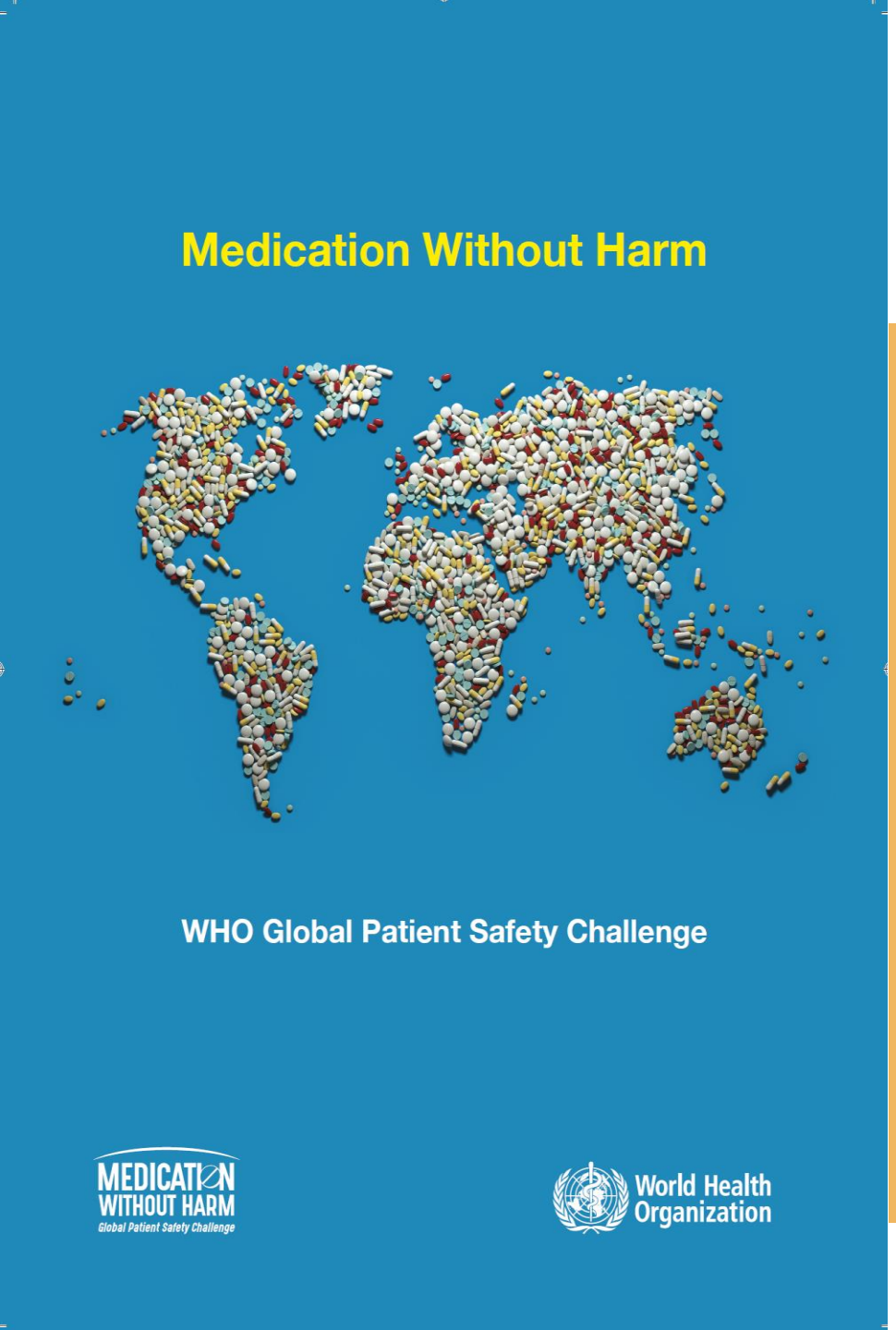

MEDICATION WITHOUT HARM
Global Patient Safety Challenge

World Health Organization

Practical examples - Addressing medication safety in transitions of care at the national level

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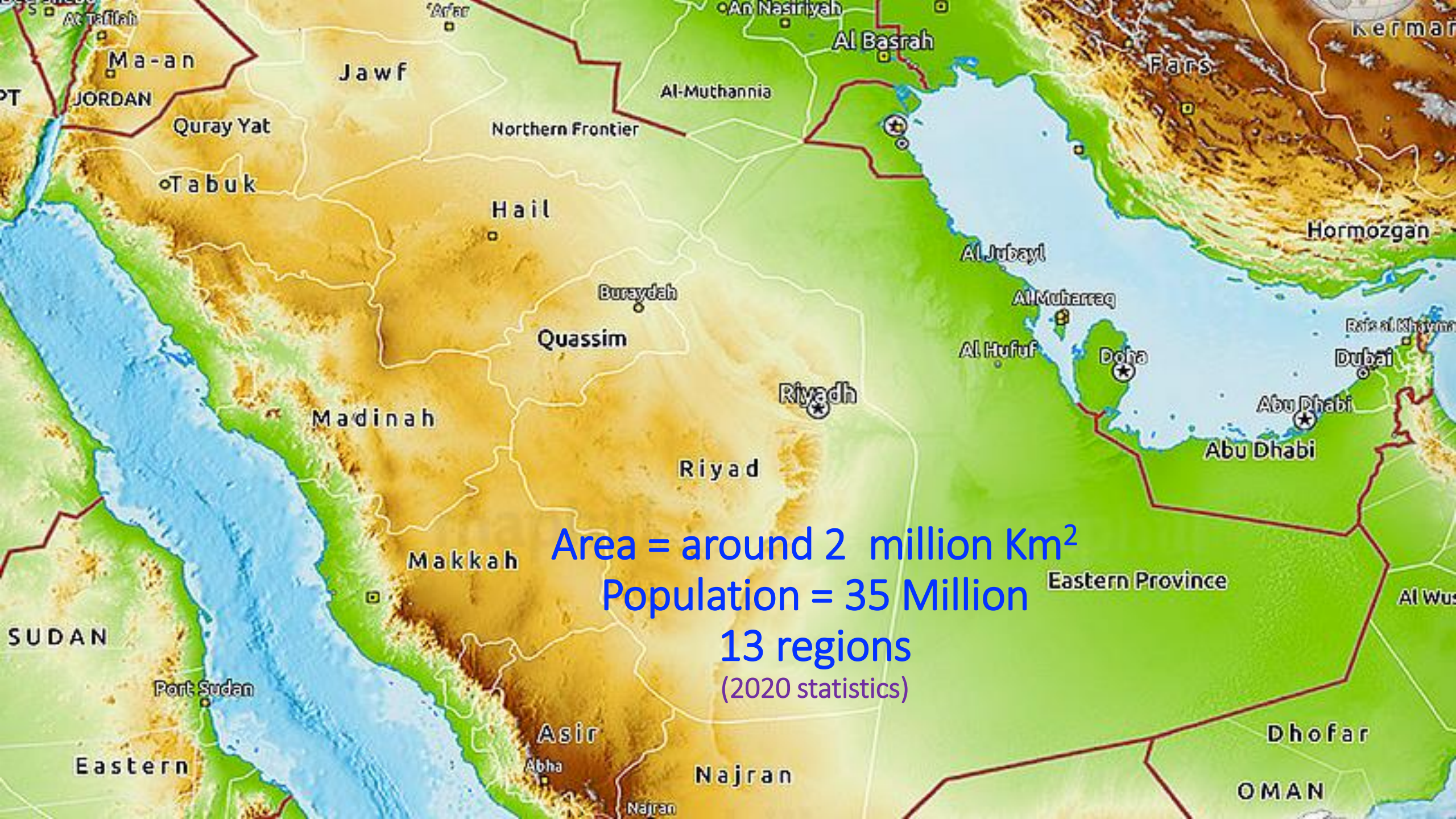
07 June 2022


Ma-an
JORDAN
Jawf
Quray Yat
Northern Frontier
Al-Muthannia
An Nasiriyah
Al Basrah
Fars
Tabuk
Hail
Hormozgan
Al Jubayl
Buraydah
Quassim
Al Muharraq
Al Hufuf
Doha
Dubai
Riyadh
Madinah
Abu Dhabi
Riyad
Makkah
Eastern Province
SUDAN
Port Sudan
Asir
Abha
Najran
Eastern
Dhofar
OMAN
Area = around 2 million Km²
Population = 35 Million
13 regions
(2020 statistics)

Saudi Arabia healthcare

- The population of the Kingdom continues to grow and age
- The population is expected to rise from 33.5 million in mid 2018 to 39.5 million in mid 2030
- The number of elderly (aged 60 to 79) is expected to grow from 1.96 million in mid 2018 to 4.63 million in mid 2030

Saudi Arabia healthcare

- The Saudi Central Board for Accreditation of Healthcare Institutions (CBAHI) Essential Safety Requirements (ESRs) Survey of 2015 has emphasized key deficits in safety across all categories of hospitals

- There is a need for health transformation for patient care
  - Patient safety is one of the main pillars
  - ESRs mainly are on medications and transitions of care

Some numbers….

- Ministry of health database between, March 2018 to June 2019
- The electronic medication error database was structured based on the U.S. National Coordinating Council (NCC) for Medication Error Reporting and Prevention's (MERP) taxonomy of errors.
- There were 71,332 medication errors

Alshammari TM, Alenzi KA, Alatawi Y, et al. Current situation of medication errors in Saudi Arabia: a nation- wide observational study. J Patient Saf. Published online Mar 24, 2021. DOI: 10.1097/PTS.0000000000000839.

Some numbers….

TABLE 4. Possible Causes of Medication Errors and Contributed Factors

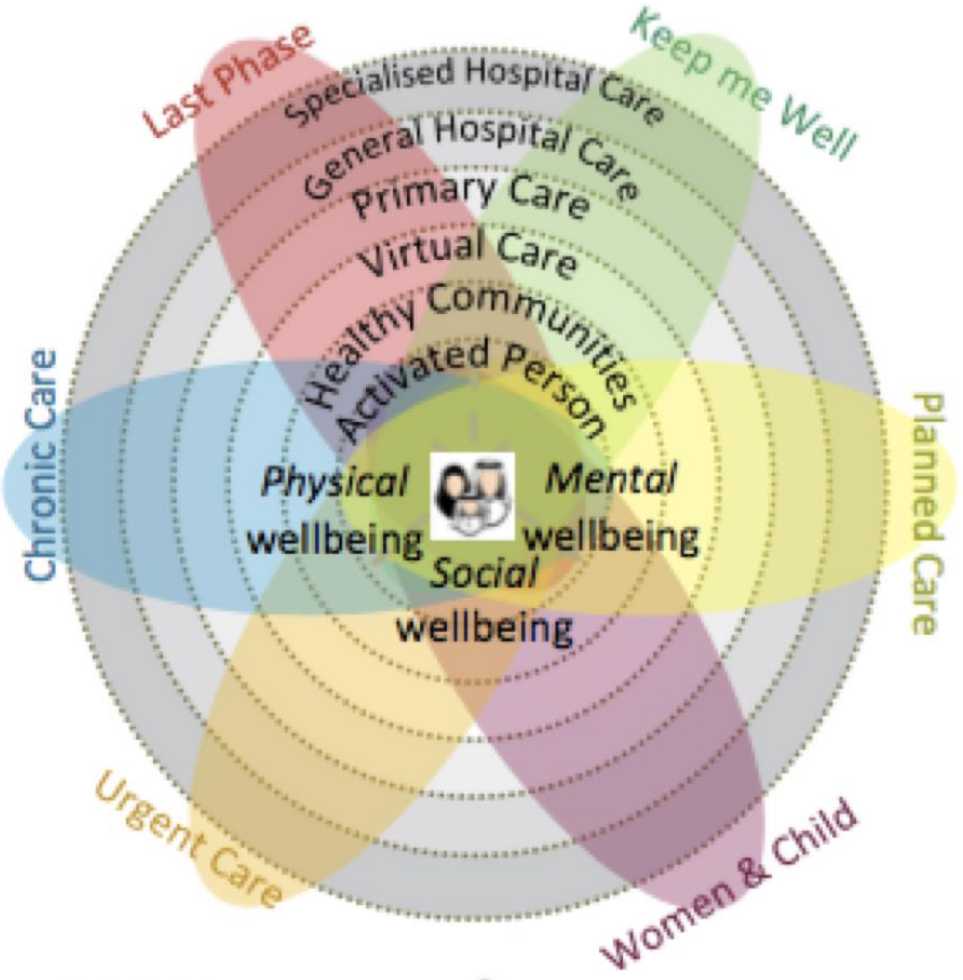
Possible Causes of Medication Error	Frequency	%
Lack of policy	10,201	14.3
Inexperienced personnel	16,200	22.7
Sound-alike medication	963	1.4
Look alike medication/packaging	825	1.2
Illegible prescription	9072	12.7
Wrong labeling/instruction on dispensing envelope or bottle/container	1445	2.0
Failure to adhere to work procedure	10,536	14.8
High workload	22,511	31.6
Patient information/record unavailable/inaccurate	3998	5.6
Stock arrangement/storage problem	470	0.7
Not specified	7681	15.8

TABLE 3. Reported Medication Errors by Drug Class and Route of Drug Administration

	Frequency	%
Route of administration		
	40,328	56.5
/SC)	23,009	32.3
	3204	4.5
	3024	4.2
	1767	2.5
	10,024	14.0
	6743	9.4
	6048	8.4
	5150	7.2
	4001	5.6
	3941	5.5
	2803	3.9
	1146	1.6
	834	1.1
	170	0.239
	166	0.232
	92	0.12
	76	0.1
	15	0.02
	30,123	42.2

[illegible], [illegible], IT, intrathecal; IV, intravenous; SC, subcutaneous.

New Models of Care



https://www.moh.gov.sa/en/Ministry/vro/Documents/Healthcare-Transformation-Strategy.pdf

New Models of Care

- Safe Birth
- The system will support safe medication use during all medication use process for women to have a safe delivery and healthy infants
- Safety of both during transitions of care

Transitions of care

- The various points where a patient moves to, or returns from, a particular physical location or makes contact with a health care professional for the purposes of receiving health care

- When patients move across care settings, medication reconciliation is an important issue that needs to be addressed

Main agencies involved in medication safety

- Ministry of Health
- Other governmental health sector (e.g., National Guard Health Affairs)
- The Saudi Central Board for Accreditation of Healthcare Institutions (CBAHI)
- Patient Safety Centre
- Saudi FDA

Several activities have been adopted

- Engagement with patients, families and caregivers
- Patient-held medication list
- Support around discharge
- Medication reconciliation

المركز السعودي لسلامة المرضى
SAUDI PATIENT SAFETY CENTER

PATIENT SAFETY ALERT
Medication Errors

DESCRIPTION:
Medication Errors represent a major problem affecting many patients. According to a study conducted in four hospitals in Riyadh, Adverse Drug Events (ADEs) occur in 6.1 (95% CI 5.4 to 6.9) per 100 admissions and 7.9 (95% CI 6.9 to 8.9) per 1000 patient-days. ADEs occur most commonly (84%) in the prescribing stage by physicians. Generally medication errors occur in the flowing five stages of medication use process:

- Prescribing (The most common),
- Transcription
- Dispensing
- Administration
- Monitoring.

DEFINITIONS:
MEDICATION ERRORS:
A medication error is defined as any error that occurs in the medication use process (ordering, transcribing, dispensing, administering, and monitoring)
ADVERSE DRUG EVENTSS (ADEs):
Adverse drug events (ADEs) are defined as injuries due to medications, which include both ADRs and injuries caused by medication errors.
ADVERSE DRUG REACTIONS (ADRs)
According to the World Health Organization ADRs is defined as ("a response to a drug which is noxious and unintended, and which occurs at doses used in man for prophylaxis, diagnosis, or therapy of disease, or for the modifications of physiological function").
The most common causes of medication errors are as follow:

- Illegible Handwriting.
- Incomplete Prescription.
- Using of Unapproved Abbreviations.
- Lacking of Medication Reconciliation.
- Improper use of verbal and telephone orders
- Lacking of Look Alike Sound Alike (LASA) error preventive Strategies.
- Lacking of High Alert Medications Error Preventive Strategies.
- No effective Pharmacy & Therapeutics (P&T) Committee.

CATEGORY:
Leadership – Clinical Pharmacists, hospital and community pharmacists, Medical – Nursing – Provision of Care - IPC – Medication Management.

TARGET AUDIENCE:
Hospitals, Primary Healthcare Centers, Ambulatory Care Centers, Medical Laboratories, Community Pharmacies, Radiology and Diagnostic Imaging Centers.

RECOMMENDATIONS ACTION ITEMS

The following recommendations must be implemented in all healthcare facilities:

1. Establish a Medication Safety Program.
2. Designate a Medication Safety Officer.
3. Establish an effective Pharmacy & Therapeutics (P&T) Committee.
4. Create a "Just Culture".
5. Enhance reporting of Adverse Drug Events (ADEs) (Medication Error + Adverse Drug Reaction).
6. Implement a Look Alike & Sound Alike (LASA) and High Alert Medications Policies.
7. Implement Medication Reconciliation policy.
8. Use Electronic Health Records (EHR) with Computerized Provider Order Entry (CPOE).
9. Empower and Engage patient in their treatment plan.
10. Emphasize proper Patient Counselling.
11. Develop a Medication Safety Course for all healthcare professionals involved in medication use process.

2017

https://www.spsc.gov.sa/English/Pages/Patient-Safety-Alerts.aspx

Teams

- Medication safety committee
- Multidisciplinary team
- 15 members
- Pharmacist, physicians, nurses, medication safety officers
- Meet every two weeks to review the results of the incident reports from all hospital areas

CBAHI role

- It is mandatory now all hospitals (governmental and private) to be accredited by CBAHI
- It cover different aspects in the health institutions
- Medications have a big part of the accreditation process

CBAHI role

Kingdom of Saudi Arabia
Saudi Health Council
Saudi Central Board for Accreditation
of Healthcare Institutions

CBAHI

المملكة العربية السعودية
المجلس الصحي السعودي
المركز السعودي لاعتماد المنشآت الصحية

PC.٩. Medication management follows local rules and regulations.

PC.٩,١. The HHS develops a process for medication reconciliation by the attending physician.

PC.٩,٢. The HHS develops a process for the safe prescribing by the attending physician.

PC.٩,٣. Healthcare staff dispense and administer medications under aseptic conditions.

PC.٩,٤. Medication allergies and adverse drug reactions are documented in the patient's medical record and adverse drug reactions are reported to local authorities.

PC.٩,٥. Home Visit bags are well prepared according to the list of its contents with expiry.

MM.5 The hospital has a system for the safety of high-alert medications.

MM.5.1 There is a written multidisciplinary plan for managing high-alert medications and hazardous pharmaceutical chemicals. It

MM.5.2.6 Insulins.

MM.5.2.7 Anesthetic medications (e.g., propofol, ketamine).

M **MM.5.2.8** Investigational (research) drugs, as applicable.

MM.5.2.9 Other medications as identified by the hospital.

MM.5.3 The hospital plan for managing high-alert medications and hazardous pharmaceutical chemicals is implemented. This includes, but is not limited to, the following:

MM.5.3.1 Improving access to information about high-alert medications.

MM.5.3.2 Limiting access to high-alert

MM.5 لدى المستشفى نظام لسلامة الأدوية الخطرة

MM.5.1 هناك خطة مكتوبة متعددة التخصصات لإدارة الأدوية والمواد الكيميائية الصيدلانية الخطرة. وتشمل الخطة تحديدها ، موقعها ، ووضع العلامات ، والتخزين ، والتوزيع ، وإدارة الأدوية

MM.5.2.6 الانسولين

MM.5.2.7 الأدوية المخدرة (مثل البروبوفول والكيتامين).

MM.5.2.8 العقاقير (البحثية) التحقيقية ، حسب الاقتضاء.

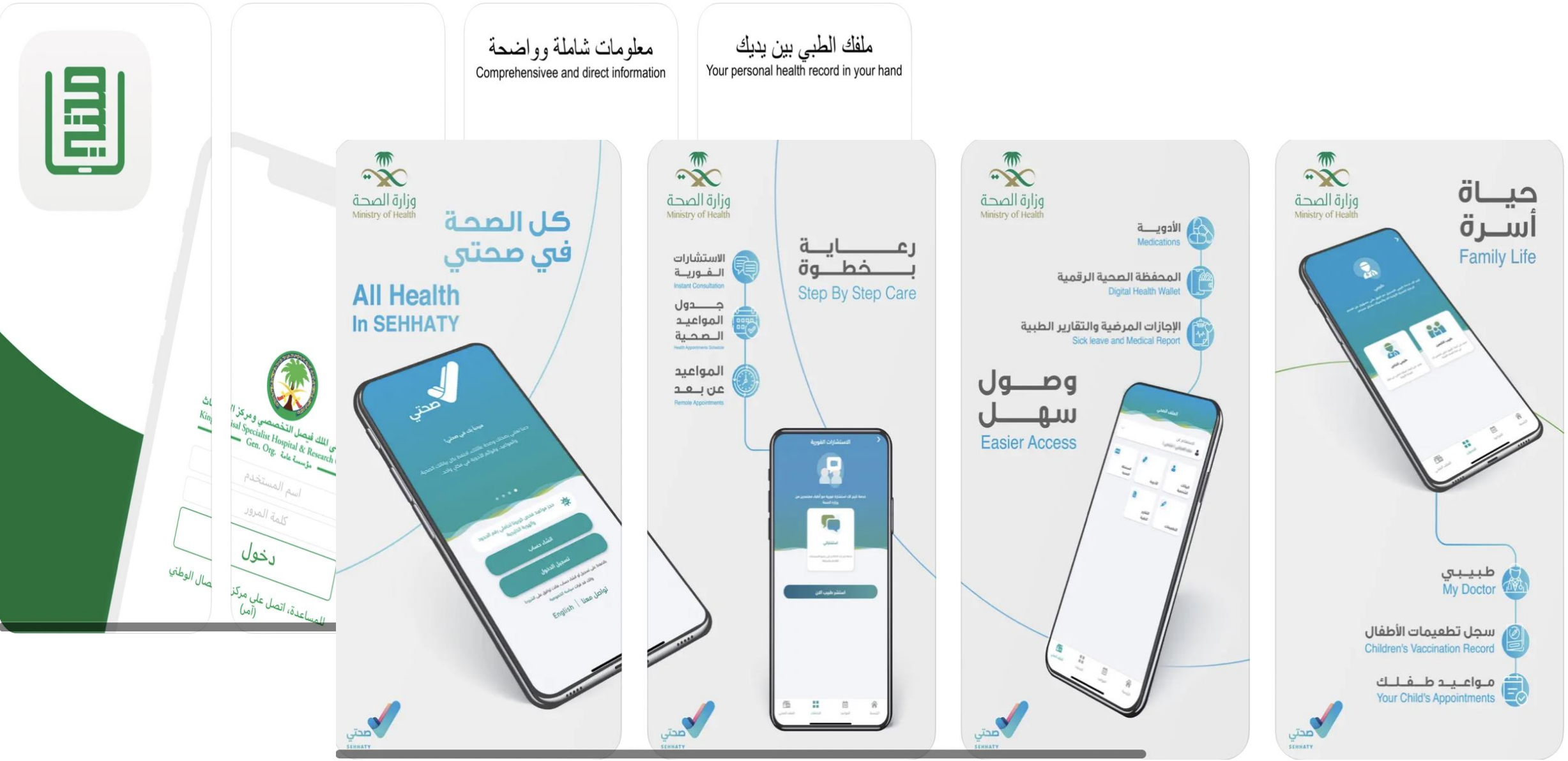
MM.5.2.9 الأدوية الأخرى التي يحددها المستشفى.

MM.5.3 يتم تنفيذ خطة المستشفى لإدارة الأدوية الخطرة والمواد الكيميائية الصيدلانية الخطرة. وهذا يشمل ، على سبيل المثال لا الحصر ، ما يلي:

MM.5.3.1 تحسين الوصول إلى المعلومات حول الأدوية الخطرة.

MM.5.3.2 تقييد الوصول إلى الأدوية عالية الخطرة.

Patient medication list



RSD

English

المملكة العربية السعودية
الهيئة العامة للغذاء والدواء

ما هو نظام التتبع الالكتروني؟

أنشأت الهيئة العامة للغذاء والدواء نظام التتبع الالكتروني للمستحضرات الصيدلانية (
للمساهمة في برنامج التحول الوطني 2020 الذي يهدف لتحقيق «رؤية المملكة .العر
2030» وذلك بتبني أحدث الوسائل التقنية واستخدامها في تتبع وتعقب جميع الأدوي
المصنعة داخل المملكة أو المستوردة من خارجها

https://rsd.sfda.gov.sa/index.html

Summary

- The new health transformation is focusing on patient care and safety
- Different instituions and programs are available to ensure the medication safety in transitions of care
- The new transformation helped for more alignment between these institiotions with the repsect to medication safety
- More efforts are required by heatlhcare professional to follow up these programs and guidelines

Thank you
Gracias
Merci

Thamer.alshammary@gmail.com