



وزارة الصحة
Ministry of Health

PHARMACY NEWSLETTER

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Pharmaceutical Care, Ministry of Health

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1.1 Formulary New Additions

Esomeprazole 20 mg tablet

Isavuconazonium sulfate 372 mg powder for injection: vial
Restricted for the treatment of invasive aspergillosis and invasive mucormycosis, restricted to ID consultants (adults and pediatrics)

Benralizumab 30 mg/ml Sub Q injection, syringe
Restricted for the treatment of severe asthma with an eosinophilic phenotype, restricted to consultant pulmonologist (adults)

1.2 Formulary Deletions

Bromfenac 0.09% (900 micrograms/ml) eye drops

Diclofenac sodium 0.1% (1 mg/ml) eye drops, 5 ml bottle

Ketorolac tromethamine 0.5% (5 mg/ml) eye drops

Aminoglutethimide 250 mg tablet

Dinoprostone 500 microgram/2.5 mg vaginal gel

Estradiol valerate 10 mg/ml injection, 1 ml vial

Progesterone 100 mg/2 ml injection, 2 ml ampule

Progesterone 50 mg pessary

Progesterone 50 mg/ml injection, 1 ml ampule

Codeine phosphate 30 mg tablet

Codeine phosphate 5 mg/ml oral liquid

Mefenamic acid 50 mg/5 ml oral liquid

Sulindac 100 mg tablet

Morphine sulfate 20 mg/ml oral liquid

Acetylsalicylic acid 500 mg tablet

Magnesium sulfate 1% (1 g/100 ml) injection: intravenous infusion, 100 ml bag

Magnesium sulfate 50% (1 g/2 ml) injection, 2 ml ampule

Magnesium sulfate 10% (2g/20 ml) IV, IM , 20 ml ampule

Quinidine gluconate 800 mg/10 ml Injection, 10 ml vial

Artemisinin 250 mg capsule

Selegiline hydrochloride 5 mg tablet

Procyclidine 10 mg/2 ml injection, 2 ml ampule

Benzotropine mesilate 500 mg tablet

Amitriptyline hydrochloride 10 mg/5 ml oral liquid

ClomiPRAMINE hydrochloride 50 mg capsule

ClomiPRAMINE hydrochloride 10 mg tablet

DiazePAM 2 mg/5 ml oral liquid

LORazepam 4 mg/ml injection, 1 ml ampule

Phenytoin sodium 50 mg capsule

Temazepam 15 mg capsule

Amobarbital sodium 500 mg powder for injection, vial

Chlordiazepoxide hydrochloride 25 mg tablet

Clonazepam 1 mg/ml injection: concentrated, 1 ml ampule

Flupentixol 500 microgram tablet

Flupentixol decanoate 40 mg/2 ml injection: modified release, 2 ml ampule

Moclobemide 150 mg tablet

Nitrazepam 2.5 mg/5 ml oral liquid

Nitrazepam 5 mg tablet

Paraldehyde 5 ml/5 ml injection, 5 ml ampule

Spiramycin 250 mg (750,000 international units) tablet

SulfADIAZINE 500 mg tablet

Tetracycline hydrochloride 250 mg powder for injection, vial

Tobramycin 20 mg/2 ml injection, 2 ml vial



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Amoxicillin 100 mg/ml oral liquid

Ciprofloxacin 250 mg tablet

Econazole nitrate 150 mg pessary

Hydrocortisone 1% (10 mg/ml) + neomycin sulfate 3,400 international units/ml + polymyxin B sulfate 10,000 international units/ml ear drops

Hydrocortisone acetate 1% (10 mg/ml) + gentamicin 0.3% (3 mg/ml) ear drops

Kanamycin sulfate 1 g powder for injection, vial

LevoFLOxacin 500 mg/100 ml injection: intravenous infusion, 100 ml bottle

Niclosamide 500 mg chewable tablet

Norfloxacin 400 mg tablet

Ribavirin 6 g inhalation: powder for nebulizer solution, vial

Raltegravir 400 mg tablet

Nelfinavir 50 mg/g oral powder

Thioacetazone 50 mg tablet

Thioacetazone 75 mg tablet

Ringer lactate injection: intravenous infusion, 500 ml bag

Trastuzumab 150 mg powder for injection, vial

Trastuzumab 440 mg powder for injection, vial

Bevacizumab 100 mg/4 ml preservative free injection: concentrated, 4 ml vial

Bevacizumab 400 mg/16 ml injection: concentrated, 16 ml vial

RiTUXimab 100 mg/10 ml injection: concentrated, 10 ml vial

RiTUXimab 500 mg/50 ml injection: concentrated, 50 ml vial

Bisoprolol fumarate 2.5 mg tablet

Itraconazole 100 mg capsule

Itraconazole 250 mg/25 ml injection: concentrated, ampule + diluent

1.3

Biosimilars Substitution

Trastuzumab 420 mg (Kanjinti®) powder for injection, vial

Trastuzumab 150 mg (Kanjinti®) powder for injection, vial

RiTUXimab 500 mg/50 ml (TRUXIMA®) injection: concentrated, 50 ml vial

RiTUXimab 100 mg/10 ml (TRUXIMA®) injection: concentrated, 10 ml vial

Bevacizumab 400mg/16 ml (ZIRABEV®) preservative free injection: concentrated, 16 ml vial

Bevacizumab 100 mg/4 ml (ZIRABEV®) preservative free injection: concentrated, 4 ml vial

1.4

New Strength and/or Dosage Form Addition

Dinoprostone 1 mg/3 g vaginal gel

Dexamethasone 2 mg tablet

Ringer lactate injection: intravenous infusion, 1000 ml bag

Omeprazole 10 mg capsule

Paliperidone palmitate 350 mg/1.75 ml powder for injection extended release : intramuscular, vial

Paliperidone palmitate 525 mg/2.625 ml powder for injection extended release : Intramuscular, vial

Magnesium sulfate 50% (2 g/5 ml) Injection, 5 ml ampule

Caspofungin 70 mg for infusion, vial

Benzatropine mesilate 1 mg scored tablet



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1.5 New Restriction

Amphotericin B (as liposomal) 50 mg powder for injection, vial
Restricted to ID (adults and pediatrics) for approved indications

ISOTretinoin 10mg , 20 mg capsule
Restricted to Dermatology

1.6 NP to P switch

Not planned to planned

Tazarotene 0.1% (1 mg/g) gel

Cantharidin 0.7% (7mg/ml) application

Fluorouracil 5% (50 mg/g) cream

Imiquimod 5% (12.5 mg/250 mg) cream

Miltefosine 6% (60 mg/ml) application

Podophyllotoxin 0.15% (1.5 mg/g) cream

Clobetasol propionate 0.05% (500 microgram/g) 25 g cream

Monobenazyl ether of hydroquinone
(Monobenzone)20 g tube 20% cream

Papaverine hydrochloride 300 mg/10 ml injection, 10 ml ampule

Lidocaine hydrochloride anhydrous 1% (200 mg/20 ml) +
epinephrine (adrenaline) 1 in 200 000 (100 microgram/20 ml)
injection, 20 ml vial

Lignocaine hydrochloride 20% (preservative free) injection, 5 ml
syringe

Ropivacaine hydrochloride 0.2% (20 mg/10 ml) injection, 10 ml
ampule

Phentolamine mesylate 10 mg/ml injection, 1 ml ampule

Nitroprusside sodium 50 mg/5 ml injection: concentrated, 5 ml
vial

Dextrose 10% (1 g/10 mL) injection, 10 ml ampule

Spirolactone 25 mg/5 ml oral liquid

Dipyridamole 10 mg/2 ml injection, 2 ml ampule

Propranolol hydrochloride 1 mg/ml injection, 1 ml ampule

Carboplatin 150 mg/15 ml injection: concentrated, 15 ml vial

Carmustine 100 mg powder for injection, vial

Chlorambucil 5 mg tablet

flutamide 250 mg tablet

Gemcitabine 1 g/100 ml injection: concentrated, 100 ml vial

Mitomycin 10 mg powder for injection, vial

Phenylephrine hydrochloride 10% (50 mg/0.5 ml) eye drops,
0.5 ml unit dose

Pilocarpine nitrate 2% (10 mg/0.5 ml) eye drops, 0.5 ml unit dose

Betaxolol 0.25% (2.5 mg/ml) eye drops

Dorzolamide 2% (20 mg/ml) + timolol 0.5% (5 mg/ml) eye drops

Loteprednol etabonate 0.5% (5 mg/ml) eye drops

Nepafenac 0.1% (1 mg/ml) eye drops 5 ml

Indocyanine green sodium 25 mg powder for injection, vial

Carmellose sodium 0.5% (5 mg/ml) eye drops
Restricted to Ophthalmologist

Carmellose sodium 0.5% (2 mg/0.4 ml) eye drops, 0.4 ml unit dose
Restricted to Ophthalmologist

Carboxymethylcellulose (carmellose) sodium + glycol

Oxybuprocaine hydrochloride 0.4% (2 mg/0.5 ml) eye drops,
0.5 ml unit dose

Cyclopentolate hydrochloride 0.5% (2.5 mg/0.5 ml) eye drops,
0.5 ml unit dose

Ketorolac tromethamine 0.45% (1.8 mg/ 0.4 ml) minims
Restricted to Ophthalmologist

Gentamicin 0.3% (1.5 mg/0.5 ml) eye drops, 0.5 ml unit dose

Timolol 0.5% (5 mg/ml) eye drops

Trifluridine 1% (10 mg/ml) eye drops

Tranexamic acid 500 mg tablet



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Tranexamic acid 500 mg/5 ml oral liquid

Morphine sulfate 10 mg tablet: immediate release

Morphine sulfate 10 mg tablet: modified release

Captopril 5 mg/ml oral liquid

Artesunate 100 mg , 200mg suppository

Artesunate 50 mg tablet

PHENobarbital sodium 15 mg/5 ml oral liquid

Topiramate 15 mg sprinkle capsule

Restrict to pediatric neurologists

Haloperidol (as decanoate) 50 mg/ml injection: modified release,
1 ml ampule

Restricted to psychiatrists

Haloperidol 2 mg/ml oral liquid

HydrOXYzine dihydrochloride 2 mg/ml oral liquid

LamoTRIgine 25 mg tablet

ClonazePAM 500 microgram tablet

Primidone 250 mg tablet

Amoxicillin 400 mg/5 ml + clavulanic acid 57 mg/5 ml oral liquid:
powder

Clindamycin 300 mg capsule

Clofazimine 50 mg capsule

Neomycin sulfate 500 mg tablet

Pentamidine isethionate 300 mg powder for injection, vial

Foscarnet sodium 6 g/250 ml injection: intravenous infusion,
250 ml bottle

Capreomycin 1 g powder fo injection, vial

Rifabutin 150 mg capsule

isoniazid 50 mg/2 ml injection, 2 ml ampule

Protionamide 250 mg tablet

Tetracaine hydrochloride 0.5% (5 mg ml) eye drops

Follitropin alfa 150 international units (11 microgram) powder for
injection, vial + diluent

2

Medication Safety is Achieved by Analysis and Corrective Action Plan

Yes, medication safety is achieved by analysis and corrective action plan. We all believe that reporting is the first step in safety, but it is meaningless if the error is not combined with analysis and corrective action plan to prevent a recurrence

Case 1:

Upon medication review, patient's mother complained that the discharge instruction paper and available medication are different!

A patient has been discharged on Phenobarbital 100 mg, and he was taking the medication before from the strength 10mg/ml (prepared in the compounding room), which is equivalent to (10ml) and has a remaining bottle at home.

A new ready-made strength (15mg/5ml) was recently added to the hospital formulary and dispensed to the patient with instructions of the recent strength (33.3ml). The patient took the instructions of the new strength and used the old remaining bottle. The mother complained that her son was sleeping most of the time; that's why she asked the physician about her son's medication.

As an action from the pharmacy, to avoid any future incident, the (10mg/ml) strength was entirely deleted from the formulary and only kept the 15mg/5ml. If the dosage form is not available in the future, then the tablet will be dispensed with instructions.



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Lessons learned:

1. Re-enforce independent double-checking process
2. Limit the availability of extemporaneous preparations to avoid such errors
3. Implement medication reconciliation and ensure the process effectiveness
4. Make sure the counseling is done in an effective manner with appropriate patient counseling materials

Case 2:

A patient was admitted electively for laparoscopy gastrostomy tube insertion. Upon admission, the nurse and doctor found out the patient was taking the wrong antiepileptic medication!

A patient was seen on April 1st at the clinic and planned to start Lacosamide. Subsequently was entered into the system. The mother went to the pharmacy to collect the medication, but unfortunately, Lamotrigine (Lamictal) was dispensed instead. The patient took the medication for four days. The mother noticed abnormal and aggressive behavior in addition to lack of sleep since she started on Lamictal.

The error was caught upon admission when medication reconciliation was performed. Lamotrigine was stopped, and Lacosamide was started gradually.

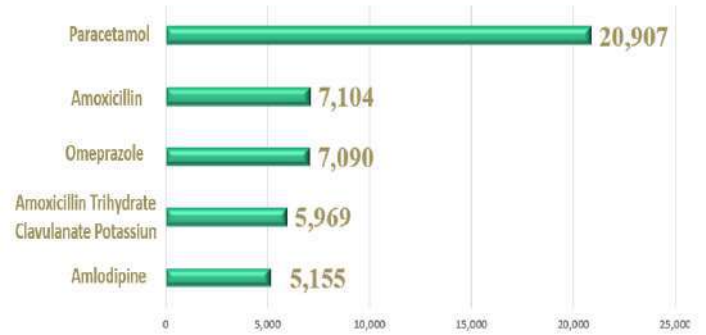
Lessons learned:

1. Re-enforce independent double-checking process
2. Make orientations and awareness on pharmacy policies (Look-alike and sound-alike)
3. Implement barcode scanning for double-checking



3 Top 5 Most Frequently Reported Medication Errors

Top 5 medications reported through Ministry of Health Medication Error Reporting link :



4 Effective Pharmacist-Patient Communication (Skills and Barriers)

The ability to communicate clearly and effectively with patients and their family members is an essential skill for successful pharmacists. However, ineffective communication leads to misunderstandings, which may lead to inappropriate decision-making regarding medication therapy, and non-adherence by the patient.

Active listening: is the most important component of effective communication. It is the ability to listen, understand and respond to what people say. It focuses on what the patient says, assessing how the way they communicate, and conveying an open, relaxed, and unhurried attitude. A pharmacist must make the patient the center of attention, and remove all professional and personal distractions.

Observation and assessment: are the ability to interpret nonverbal communication and encourage continued two-way interaction. The pharmacist should sit or stand at eye level, maintain eye contact, and use a focused body posture. Be conscious of the patient's body language, as it is the pharmacist's role to keep the patient engaged if they lose interest before the end of the conversation.

Barriers to effective communication:

For instance, **the physical barriers** include large workstations and display spaces or windows with security bars that can separate pharmacists from patients in outpatient and community pharmacies. In these settings, the pharmacist must always face the patient directly and speak slowly and clearly. Likewise, inpatient pharmacists in hospitals face different challenges when talking with patients who are intimidated by people standing over them. All conversations must be face to face, at or below the patient's eye level, to reduce patient discomfort.

Lack of privacy: is another common barrier in healthcare facilities that makes expressing personal issues or giving information difficult. In the outpatient setting, interact with patients in private counseling rooms. During the inpatient stay, try to create privacy by closing the door to the room or pulling the curtain around the bed. In community pharmacies, converse with patients in a corner away from other patients and customers.

Telephones: having a phone call with the patient could lead to a communication barrier. Before initiating the telephone conversation, identify yourself and state the purpose of the call clearly. When answering patient calls, identify yourself and ask for the caller's identity. Deal with the call immediately, and try to avoid putting the patient on hold. Pharmacists sometimes receive telephone calls from angry patients; in this situation, stay calm, listen to what they are saying, clarify the issue, and then handle the problem as professionally as possible. Don't forget to validate patients' understanding before ending the call.



5

Medication Counseling Clinics at Ministry of Health Hospitals

Medication counseling clinics were established at Ministry of Health hospitals in 2019. It is run by pharmacists who provide vital information, education, advice and assistance to help patients with their medications, ensure safe and effective use, and motivate them to follow their regimen plan. Pharmaceutical care is provided to patients either physically in the clinics or virtually through (ANAT) application.

Target Population:

- Patients with chronic diseases
- Patients who started on new medications
- Patients with high alert medications
- Patients who had an adverse drug reaction
- Polypharmacy
- Pregnant and breastfeeding

79
Counseling
Clinics

18 Different
Regions

81%

Level of Satisfaction
Q2,2021

23,897
Patients





6 Medications that Might Affect the Urine Color

Urine Discoloration Indicators	Urine Color	Probable Medication Used
	Dark Yellow	Metronidazole
	Dark Brown	Nitrofurantoin
	Red	Senna Laxative Rifampicin Doxorubicin

7 Adverse Events Considerations



Doxycycline is an antibiotic used to treat many bacterial infections. However, it can cause esophageal ulcers due to the direct effect on the esophageal and gastric mucosa, likely due to its acidic nature.

Before prescribing and dispensing, don't forget to tell the patient the following:

- 1- In general, administer with meals to decrease GI upset; however, some manufacturer labeling recommends administration on an empty stomach (check leaflet)
- 2-Take this medication with a full glass of water (8 ounces/240 milliliters)
- 3-Do not lie down for at least 10-30 minutes after taking the medication

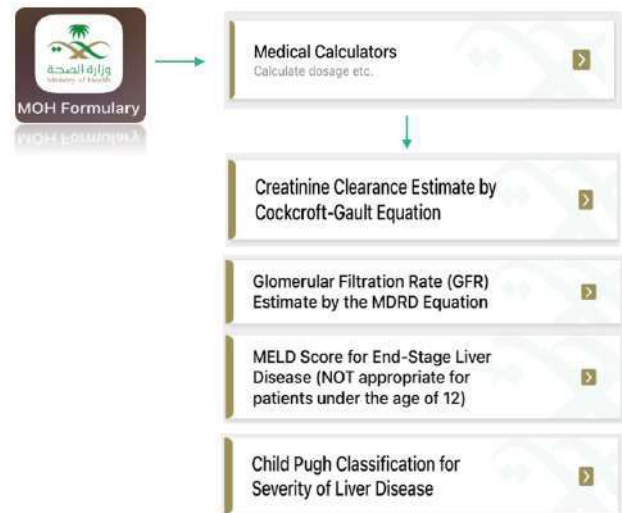
8 Know your Patient's Renal and Liver Function

Prescribing, administering and dispensing considerations

The kidney is an essential organ in regulating body fluids, electrolyte balance, removal of metabolic waste, and drug excretion from the body. Impairment or degeneration of kidney function affects the pharmacokinetics of certain medications. The liver and kidney are the two principal organs responsible for eliminating medications and their metabolites from the body.

Dosing errors are common in those patients and can cause adverse effects and poor outcomes. Dosages of medications cleared renally should be adjusted according to creatinine clearance or glomerular filtration rate and should be calculated using online or electronic calculators.

For patients with liver dysfunction, consider interpreting liver function tests (LFTs) and follow the recent guidelines and medication information to decide whether any of those medications require dose reduction or cessation.



Mark your Calendars

Innovative Insights on Hospital Pharmacy Practice (IHOP 2021)

30 NOV-2 DEC, 2021

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