وزارة الصحة
Ministry of Health

PHARMACY NEWSLETTER

Volume 2, Issue 1
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A quarterly e-newsletter of the General Administration of Pharmaceutical Care, Therapeutic Affairs Deputyship

In this issue:

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1.1 Formulary New Additions

-Raloxifene hydrochloride 60 mg tablet
Privilege of prescribing: adult endocrinologists and gynecologists.

- Romosozumab 105 mg/1.17 mL
injection, 1.17 mL prefilled pen Central Medication with indication form
Restriction: for treating severe osteoporosis in women after menopause who are at high risk of fracture, only if they have had a major osteoporotic fracture (spine, hip, forearm or humerus fracture) within the last 24 months.
Privilege of prescribing: restricted to consultant adult endocrinologist .

-Secukinumab 150 mg/mL injection, 1 mL syringe
Central Medication through immunolgy registry
Restriction: 1st line moderate to severe PsA
Privilege of Prescribing: restricted to consultant rheumatologist.

- Guselkumab 100mg/mL (1mL) injection
Central Medication through immunolgy registry
Restriction: 3rd line Moderate to severe PsA
Privilege of prescribing: restricted to consultant rheumatologist .

- Paracetamol 100 mg suppository

- Paracetamol 160 mg/5 mL oral liquid

- Clotrimazole 100 mg pessary

- Cefuroxime (as cefuroxime axetil) 500 mg tablet

- Cefuroxime (as cefuroxime axetil) 125 mg/5 mL oral liquid

1.2 Formulary Deletions

Deletion is effective when the stock reaches zero (DWZ):

- Paracetamol 125 mg suppository

- Diphenhydramine hydrochloride 12.5 mg/5 mL oral liquid

- Cefuroxime 250 mg tablet

- Crizanlizumab 10 mg/mL injection, 10 mL vial

1.3 Biosimilar Switch

- Teriparatide 20 microgram/dose (Bonteo®) injection, 2.4 mL prefilled pen
Privilege of prescribing: adult endocrinologist and rheumatologist .

1.4 Modified Indication

- Calcitonin (salmon) 100 international units/mL injection, 1 mL ampule
Delete the indication for post menopausal osteoporosis.

1.5 Extension of Indication

- Upadacitinib 15 mg tablet: modified release
Central Medication through immunolgy registry
Restriction: 2nd line moderate to severe PsA
Privilege of prescribing: Restrict to adult endocrinologists, medical oncologists, rheumatologists and geriatrics.

- Venetoclax 100 mg tablet
Central Medication with indication form
Restriction: AML in adults 75 years or older, or those who have comorbidities that preclude the use of intensive induction chemotherapy.
Privilege of prescribing: restricted to consultant hematology.

- Mometasone furoate 0.1% (1 mg/g) cream

1.6 Re-enlist to Formulary

- Tirofiban 12.5 mg/50 mL injection: concentrated, 50 mL vial
Privilege of Prescribing: Restricted to Cardiologists for percutaneous coronary intervention (PCI).

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1.7 Restriction of Prescribing

Denosumab 60 mg/mL injection, 1 mL syringe
Privilege of prescribing: restrict to adult endocrinologists, medical oncologists, rheumatologists and geriatrics

1.8 MOH Formulary Application

For IOS

For Android

2 New Approved Guidelines

1-Guidelines on the treatment of premenstrual dysphoric disorder (PMDD)

Medical treatment of PMDD the two chief evidence-based medical treatments of moderate to severe PMS are categorized by ovulation suppression and selective serotonin reuptake inhibitors: - Serotonin Reuptake Inhibitors SSRIs have been proven to be effective in the treatment of severe mood and somatic symptoms of PMDD. The ones that have been particularly linked with the relief of symptoms are Clomipramine (a tricyclic antidepressant), Selective serotonin reuptake inhibitors like escitalopram, fluoxetine, and noradrenaline reuptake inhibitor venlafaxine. Antidepressants that predominantly affect noradrenergic transmission are not as effective for PMDD as SSRIs which means that the effect of SSRIs in PMDD is not just an antidepressant effect. This is supported by the fact that the beneficial effect of SRIs begins rapidly in PMDD whereas antidepressant effect takes several weeks. Thus, clinicians can use SRIs intermittently from mid-cycle to menses to treat symptoms of PMDD as opposed to continuous treatment. Side-effects of SSRIs are usually mild. Nausea is the most common adverse effect, but it usually wears off in a couple of days after starting the therapy and doesn't reappear even if the therapy is intermittent.

Reduced libido and anorgasmia are other common adverse effects, but they are absent in drug-free intervals

To view the complete guidelines :

2-MOH Protocol for the management of Major depressive disorder (MDD)

The protocol is intended to be a practical protocol and ready reference for health professionals who work in settings where they will be caring for patients with Major Depressive Disorder. Given the extensive range of expertise, disciplines, and positions of employees at the MOH, it's impossible to capture the whole scope of specialist practice that can be used by experienced professionals across different disciplines and settings. As a result, this protocol can be applied in several cases. It provides an overview of fundamental principles and practical resources for less experienced employees, which they may implement and discuss with their supervisors. Multidisciplinary teams can utilize it as a shared reference point to aid in coordinated treatment, and more experienced professionals can use it as a refresher or training resource. The protocol should be applied within a framework of local policies and procedures.

To view the full Protocol :

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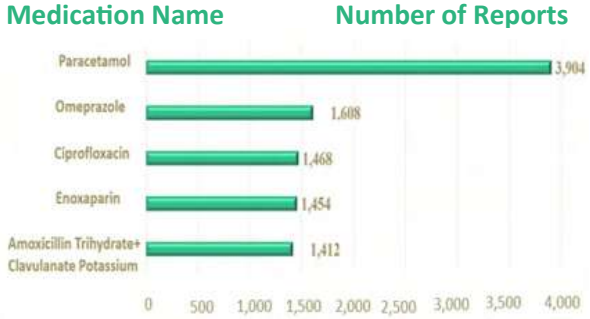
3 The Top 5 Most Frequently Reported Medication Errors

The top 5 reported medication errors through the Ministry of Health Medication Error Reporting System were as follows:



Category A: 23%, Category B: 39% Category C: 1.3% Category D: 0.13%

4 Recommendations to Reduce Sound-Alike Medication Errors

Case:
AT 9:00 AM, 8-year-old patient with an upper respiratory track infection arrived at the emergency room.

AT 9:30 AM, the physician wrote a paper order for a Ventolin Nebulizer (with the trade name) and did not enter it into the electronic system. A new nurse on the shift took the order and gave the patient a Voltaren injection of 75 mg through the intramuscular route without double-checking.

At 9:45 AM, another nurse discovered the error and informed the physician, who put the patient under observation.

Recommendations to reduce the risk of errors and minimize harm:
- Utilizing the hospital system to significantly increase the safety while using of look alike and sound-alike medications. (Using both the brand and generic names on prescriptions and labels).
- Ensuring safe prescribing transcribing of medication orders by using hospital system including the indication of prescribing the medication.
- Each hospital should have a process for reviewing and verifying medication appropriateness prior to medication administration and monitoring medication after administration.
- To minimize errors caused by sound-alike medications, The hospital should limit verbal or telephone orders to emergency cases only or when the physician can't write the order or enter it into the system.
- To enhance strategies for error reduction, each hospital must encourage pharmacists for reporting medication error including look-alike and/or sound-alike medication names.

5 How to Protect Light Sensitive Medications ?

The ultimate goal of medication safety is to increase patient safety. We could generate improvement projects to prevent medication degradation as part of medication safety and stability. It is well known that light can change the properties of different materials and products, including chemicals and medications. This can be observed as, for instance, discoloration of colorless solutions, yellowing of white paper, or bleaching of colored products like paint and textiles. Therefore, finding the right balance between light protection measures and safety under real light conditions is necessary. The decision must be made from knowledge from reliable references such as manufacturers of medications and not based on assumptions.

The decomposition of the drug substance may result in the following:
- Loss of potency, resulting in loss of effect
- Potential formation of (toxic) degradation products
- Possible side effects

The decomposition of other formulation components may result in the following:
- Change in physicochemical properties (viscosity, droplet size... etc.)
- Drug precipitation

These degradations can cause significant risks to patient safety, such as potential emboli within the blood vessel (i.e. derived from precipitation due to photochemical reactions). Therefore, how can we protect the drug from exposure to light? The answer is to keep the product in the dark or wrap it in aluminum foil. Also, we might keep the product in a nontransparent container.

Moreover, we should raise the awareness of the health care professionals on photosensitive medications and light-sensitive medications by preparing a list of these medications and equipping special covers for the light-sensitive medications boxes. Furthermore, we can use a special tag on the medication label for light-sensitive medications.

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6 ISMP Targeted Medication Safety Best Practices for Hospitals

The Institute for Safe Medication Practices (ISMP) created a list of targeted medication safety best practices for hospitals in 2014. These practices are to identify, inspire, and mobilize a widespread adoption of consensus-based best practices for those medication safety issues that continue to cause harmful and fatal errors to patients. New best practices are published every other year. Best practices 17, 18, and 19 are three new best practices that were added to the list in 2022.

Best practice 17: Prevent oxytocin use errors (such as standardizing oxytocin infusion to a single concentration for both antepartum or/and post partum)

Best practice 18: Maximize barcode verification before medication and vaccine administration by expanding its use beyond inpatient care settings.

Best practice 19: Set multiple strategies during the medication-use process of high-alert medications to improve safety.

For more details on the three best practices, visit:

7 Recommendations for Using Steroids in Treating Asthmatic Patients with Acute Exacerbation

The Saudi initiative for asthma guideline (SINA2021) recommends the use of steroids therapy in treating asthmatic patients with acute exacerbation as follows:

For adults:
1-Oral prednisone 1 mg/kg/day (to the maximum of 50 mg daily) should be started as soon as possible.
2-Alternatively, IV hydrocortisone 200–400 mg, in divided doses, should be administered, or methylprednisolone 80 mg.
3-Inhaled Corticosteroids (ICS) can be prescribed as Metered Dose Inhaler (MDI) with or without a spacer, Dry Powder Inhaler (DPI), and Breath-actuated inhalers after systemic steroids. Do not prescribe nebulized steroids except for patients who have difficulties using other forms of inhalers. For available ICS in MOH formulary, see the table below.

List of inhaled corticosteroids for adults and adolescents and daily recommended doses:

Drug (doses in mcg)	Low dose	Medium dose	High dose
Budesonide (DPI)	200-400	>400-800	>800-1600
Fluticasone propionate (MDI)	100-250	>250-500	>500-1000

For Children:
1- Consider oral steroids if there is no response to the first dose of Salbutamol. Prednisolone dose is 1–2 mg/kg. The maximum dose is 20 mg for children aged less than 2 years, 30 mg for children aged 2–5 years, and 60 mg for children aged 5–12 years. Continue oral prednisolone for 3-5 days
2- Inhaled corticosteroids can be prescribed after oral steroids
3- Use of valved-holding spacer with a mask or mouthpiece whenever MDI is prescribed. Breath-actuated devices and DPI represent an effective and simpler option for maintenance therapy in children 5–12 years of age. For available ICS in MOH formulary, see the table below.
4- A steroid nebulizer is only recommended for children less than 6 years old.
5- Council/educate the child/caregiver on the inhaler technique and a follow-up visit within 1 week to the appropriate clinic.
List of inhaled corticosteroids for children and daily recommended doses:

	Less than 5 years	Children above 5 years		
Drug (doses in mcg)	Low dose	Low dose	Medium dose	High dose
Budesonide (DPI)	200 nebulizers =500	200-500	>500-1000	>1000
Fluticasone propionate (MDI)	100	100-200	>200-500	>500

8 Antihistamines Equivalent Doses

Cetirizine, Loratadine and Desloratadine (available as syrup dosage forms for pediatrics) are non-sedating anti-histamines and can be considered equivalent agents when prescribing.
Equivalent doses:

Age group	Cetirizine oral syrup	Loratadine syrup	Desloratadine syrup
Infants ≥6 months to Children <2 years	2.5 mg once daily.	Not recommended	1 mg once daily.
Ages 2 to 5 years	2.5 to 5 mg maximum daily dose: 5 mg/day.	5 mg once daily.	1.25 mg once daily.
Ages 6 to 11 years	5 to 10 mg once daily.	10 mg once daily.	2.5 mg once daily.
Adolescents	5 to 10 mg once daily.	10 mg once daily.	5 mg once daily.

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9 Replacing Nebulizers by Metered Dose Inhalers (MDIs) Spacers for Bronchodilator Medications

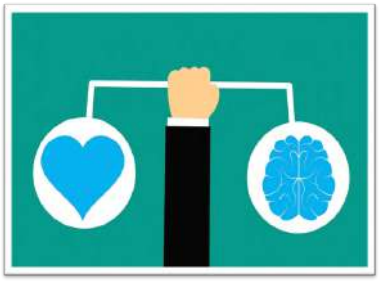
A bronchodilator given by a spacer is as good as a nebulized treatment:

Salbutamol Metered Dose Inhalers (MDIs) given by a spacer are an effective alternative to nebulizers in treating acute asthma exacerbations in adults and children. Multiple studies have found no difference between salbutamol MDIs given by a spacer and nebulized salbutamol in treating mild to moderate exacerbations or in avoiding hospital admissions.
Please ensure prescribing a spacer for all adults and pediatrics who have difficulties using MDI. Renew prescribing spacers every 6-12 months.

The drug should be administered by spraying one puff of MDIs into the spacer, followed by breathing deeply and slowly through the mouth (if unable to take a deep breath, 5 to 6 normal breaths will allow complete emptying of the drug in the spacer).

For more details about using the spacer scan the following:

10 Emotional Intelligence in Healthcare



Those with high emotional intelligence (EI) are more likely to be hired, promoted, and receive higher income. But what exactly is EI, and why is it so important?
Emotional intelligence is: "the ability to understand and manage your own emotions, as well as recognize and influence the emotions of those around you." 1990 by researchers John Mayer and Peter Salovey, popularized by psychologist Daniel Goleman.

A high EI can help with the following:
- Development of connections
- Reduction of team tension
- Resolution of conflict
- Enhancement of job satisfaction

Finally, having a high EI means having the ability to boost team productivity and worker retention.
Four components of EI:
-Self-awareness
-Self-regulation
-Social awareness
-Relationship management
Emotional intelligence in pharmacy practices:
Several studies have shown that EI enhances performance in all professions, including pharmacy practices.
It will help pharmacists build relationships with patients and raise patient satisfaction. Additionally, it will increase innovation and proactivity at work.
Fortunately, emotional intelligence is not a genetic trait that some people are born with, and others are not. Therefore, you can develop EI skills throughout your life practice.
- Try to slow your reactions to emotions.
- Think about your strengths and weaknesses.
- Try to understand non-verbal communications.
- Work on communicating effectively and openly.

Although "regular" intelligence is essential to success, emotional intelligence is vital to achieving your goals and relating well to others.
For more information scan the barcode:

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