NOVEMBER , 2024

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ETHIOPIAN FOOD & DRUG AUTHORITY

www.efda.gov.et

MEDICINE INFORMATION BULLETIN

A QUARTERLY BULLETIN PUBLISHED BY ETHIOPIAN FOOD AND DRUG AUTHORITY

VISION

To be a center of excellence in food and health products regulation in Africa.

MISSION

To protect and promote public health by ensuring the safety, effectiveness, quality and proper use of regulated products through licensing, inspection, registration, laboratory testing, post-marketing surveillance, community participation, and provision of up-to-date regulatory information.

OBJECTIVE

The objective of the Authority is to protect the public health by regulating food, medicine and medical devices, blood and blood products, traditional, complementary or alternative medicine, cosmetics, tobacco, quality control service provider, bioequivalence centers and other products and services entrusted to the Authority to regulate.

Contents

contact us
contactefda@efda.gov.et

Editorial

This is the Second issue of the bulletin for the year 2024. Several topics having current importance are hereby brought to our readers. We certainly hope that the information covered under this bulletin useful particularly to health professionals and the public in general.

Tell us what you think!

Your thoughts and suggestions are important to us. To help us improve our bulletin and better serve your interests, we would greatly appreciate your feedback. Please take a moment to share your comments, ideas, or any topics you'd like us to cover in future editions.

Send your feedback to via
E-mail: contactefda@efda.gov.et
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Thank you for helping us make our bulletin better!

Scientific Information

The First Needle-Free Epinephrine for Treating Life-Threatening Allergic Reactions

What is Neffy?

Neffy is a nasal spray formulation of epinephrine used for the emergency treatment of life-threatening allergic reactions, including anaphylaxis. It is approved for use in adults and children weighing 30 kilograms or more who have a history of, or risk factors for, serious allergic reactions.
Each Neffy nasal spray provides a single dose of epinephrine, designed for immediate administration by the patient or a caregiver in an allergic emergency.

Mechanism of Action

Neffy (epinephrine 2 mg nasal spray) works by activating specific receptors in the body, called alpha and beta receptors. Alpha receptors constrict blood vessels, while beta receptors relax airways and increase heart rate. This combined action helps counteract the severe effects of an allergic reaction
.

US FDA Approval

Neffy gained US FDA approval on August 9, 2024, as the first needle-free epinephrine treatment for life-threatening allergic reactions. Neffy contains epinephrine, a medicine for treating severe allergic emergencies (anaphylaxis). Anaphylaxis can occur within minutes and can be triggered by insect stings, allergy injections, foods, medications, exercise, or unknown causes.

Common Side Effects

The most common side effects of Neffy include:

- Throat irritation
- Tingling in the nose
- Headache
- Nasal discomfort
- Feeling overly excited, nervous, or anxious
- Tingling sensations
- Fatigue
- Shakiness
- Runny or itchy nose, sneezing
- Stomach pain
- Gum pain or numbness in the mouth
- Nasal congestion
- Dizziness, nausea, vomiting

Dosing Information

- Neffy is for nasal use only. Do not spray into the eyes or mouth.
- Administer one dose in either nostril.
- Each Neffy device contains a single dose and cannot be reused.
- If a second dose is required, administer it in the same nostril 5 minutes after the first dose.
- Do not sniff during or after using Neffy.

Interaction with Other Drugs

- Neffy may interact with:
- Other nasal sprays
- Diuretics
- Medicines for depression, such as tricyclic antidepressants or MAO inhibitors
- Medicines for abnormal heart rhythms (arrhythmias), such as cardiac glycosides
- Medicines for Parkinson's disease, such as COMT inhibitors and ergot alkaloids
- Medicines for heart disease, including alpha-blockers (e.g., phentolamine) and beta-blockers (e.g., propranolol)
- Thyroid medications, such as levothyroxine sodium
- Medicines used in labor
- Allergy medications, such as diphenhydramine, tripelennamine, or chlorpheniramine (antihistamines)

A New Anticancer Drug for Breast Cancer: Itovebi

What is Itovebi?

Itovebi is a medication used to treat HR-positive, HER2-negative breast cancer with an abnormal PIK3CA gene that has spread or recurred after previous treatment. When combined with palbociclib and fulvestrant, Itovebi may help double progression-free survival compared to treatment with palbociclib and fulvestrant alone. Itovebi (inavolisib) is taken as a once-daily tablet, with or without food, ideally at the same time each day.

Mechanism of Action

Itovebi works by inhibiting PI3K, specifically targeting PI3Kα. This action slows tumor growth and induces cancer cell death. Itovebi belongs to a class of medications known as phosphatidylinositol 3-kinase (PI3K) inhibitors

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USFDA Approval

Itovebi was approved by the USFDA on October 10, 2024, for the treatment of adults with endocrine-resistant, PIK3CA-mutated, hormone receptor (HR)-positive, HER2-negative, locally advanced or metastatic breast cancer. It is used in combination with palbociclib and fulvestrant following recurrence after adjuvant endocrine therapy. In clinical trials, the Itovebi-based regimen reduced the risk of cancer progression or death by 57% compared to palbociclib and fulvestrant alone, with a progression-free survival of 15.0 months versus 7.3 months.

Common Side Effects

The most common side effects of Itovebi include:

- Headache
- Rash
- Nausea
- Diarrhea
- Loss of appetite
- Fatigue
- Increased blood sugar levels
- COVID-19 infection
- Mouth inflammation (stomatitis)
- Decreased neutrophils, hemoglobin, platelets, lymphocytes
- Electrolyte changes (e.g., decreased calcium, potassium, sodium, magnesium)
- Increased creatinine and ALT levels

Serious Side Effects

- High blood sugar levels (hyperglycemia)
- Mouth sores
- Diarrhea
- Fertility issues

Method of administration and Dosing Information

The recommended dose of Itovebi is 9 mg every 24 hours, taken with or without food. It is administered in combination with palbociclib and fulvestrant. Dose modifications may be necessary due to adverse reactions or renal impairment.

If you miss a dose, take it within 9 hours of your usual dosing time. If more than 9 hours have passed, skip the missed dose and take the next dose at your usual time the following day.

Source: Drug.com

Arm Position during Blood Pressure Checks May Lead to Inaccurate Readings, Study Finds

According to the American Heart Association (AHA), nearly half of U.S. adults have elevated blood pressure, which is diagnosed when blood pressure readings exceed the normal average of 120/80. If left untreated, hypertension can increase the risk of stroke, heart attack, and other cardiovascular conditions. Proper reading and measurement of blood pressure in appropriate positioning is very important.

A recent study by Johns Hopkins researchers highlights that arm positioning during blood pressure measurements can significantly impact accuracy. The study emphasizes the need for healthcare providers to pay closer attention to proper positioning techniques.

The study examined the effects of three arm positions during blood pressure testing: supported on a desk, supported on a lap, and hanging at the patient's side.

Findings showed that having the arm supported on the lap led to an overestimation of systolic blood pressure (the top number) by nearly 4 mmHg, while having the arm hanging by the patient's side overestimated it by nearly 7 mmHg. Systolic pressure measures the force of blood against artery walls when the heart beats. The AHA recommends blood pressure measurements be taken with an appropriately sized cuff, back support, feet flat on the floor, and the arm positioned at mid-heart level and supported on a desk or table.

Researchers noted that clinicians often measure blood pressure while patients are seated on an exam table with minimal arm support, which can lead to inaccuracies. For the study, 133 adults aged 18 to 80 were assigned to one of six groups with various arm positioning orders. Participants rested their backs and feet on the floor, emptied their bladders, walked for two minutes, and then rested for five minutes before their blood pressure was measured. Each participant had three measurements taken in the three seated positions, with an additional set measured with the arm supported on a desk.

Results showed that blood pressure readings taken with arms hanging by the sides were 6.5 mmHg higher in systolic pressure and 4.4 mmHg higher in diastolic pressure (the bottom number) compared to when the arm was supported.

Similarly, measurements with the arm supported on the lap showed systolic pressure 3.9 mmHg higher and diastolic pressure 4 mmHg higher than when the arm was properly supported. These inaccuracies could lead to unnecessary diagnoses of hypertension and medication prescriptions. For instance, a true blood pressure of 134 could be misread as 140 or higher if

taken with the arm hanging, potentially categorizing the patient as having stage 2 hypertension. Hence, it was emphasized that clinicians must adhere closely to best practice guidelines, and encouraged patients to advocate for proper positioning during clinical visits and at-home blood pressure checks.

Sources

- Johns Hopkins Medicine, news release
- NBC News, October 7, 2024

A New Antihypertensive Drug for Treatment of Resistant Hypertension

What is Tryvio (aprocitentan)

Tryvio (aprocitentan) is a prescription medicine used to treat high blood pressure (hypertension) in adults whose blood pressure remains uncontrolled despite the use of other antihypertensive medications. Tryvio is intended to be used in combination with other blood pressure-lowering drugs to help reduce blood pressure in adults who have not achieved adequate control with existing treatments. Lowering blood pressure reduces the risk of fatal and non-fatal cardiovascular events, including strokes and myocardial infractions.

Mechanism of Action

Tryvio (aprocitentan) is an endothelin receptor antagonist that inhibits the binding of endothelin (ET)-1 to ETA and ETB receptors. Endothelin-1 plays a significant role in the pathophysiology of hypertension, and it is a major driver of aldosterone production. Unlike other antihypertensive drugs, which typically regulate salt and water balance (diuretics), block the renin–angiotensin–aldosterone system (RAAS), reduce calcium influx (calcium channel blockers), or provide sympatholytic activity (beta blockers, alpha-agonists), Tryvio directly targets the endothelin pathway.

Dose and Method of Administration

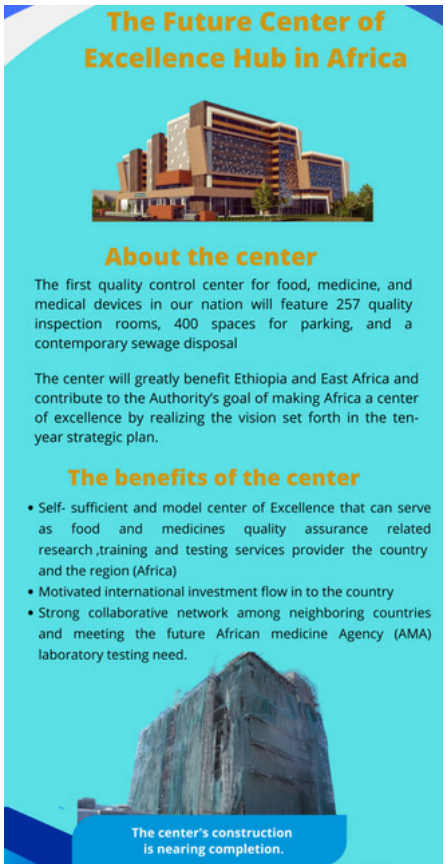
The recommended dosage of Tryvio is 12.5 mg orally once daily. Tablets should be swallowed whole and may be taken with or without food. If a dose is missed, patients should skip it and take the next dose at the regular time; they should not take two doses in one day.

Side Effects

- Common side effect: Fluid retention. Patients who experience this may be treated with diuretics. Low red blood cell levels (anemia) are also a common side effect.
- Serious side effects: Tryvio may cause decreased sperm counts in males, potentially affecting fertility. It can also cause significant birth defects if used during pregnancy, leading to a boxed warning for embryo-fetal toxicity. Patients who can become pregnant should undergo a pregnancy test before starting treatment and one month after stopping. Additionally, Tryvio may lead to liver problems.

Drug Interactions

- Clinical studies and model-informed approaches: No clinically significant differences were found in the pharmacokinetics of midazolam (a CYP3A4 substrate) or rosuvastatin (a BCRP substrate) when used with aprocitentan.
- In vitro studies: Concomitant administration of aprocitentan with UGT inducers may reduce aprocitentan exposure. Aprocitentan also inhibits CYP3A4 and all members of the CYP2C family.



Current Updates

Trends in Antimicrobial Consumption in Ethiopia: A Surveillance Report 2020-2022

Background

Antimicrobial resistance (AMR) poses a significant global health threat, largely driven by the overuse and misuse of antimicrobials across human, agricultural, and veterinary sectors. To address this challenge, global and national strategies for AMR prevention and containment have been implemented, which rely heavily on ongoing monitoring of antimicrobial consumption (AMC) as part of antimicrobial stewardship initiatives.

Objective

This study aims to assess and analyze trends in AMC in Ethiopia from 2020 to 2022, with the goal of informing national and sub-national strategies to combat AMR.

Methods

A three-year surveillance study on AMC was conducted from 2020 to 2022. Data on locally manufactured and imported antimicrobials were collected from local manufacturers and Ethiopian Food and Drug Authority (EFDA)-regulated entry points. AMC was analyzed using the WHO GLASS AMC tool, with antimicrobials classified based on the WHO Anatomical Therapeutic Chemical (ATC) classification system. Consumption was measured in Defined Daily Doses (DDDs) and DDD per 1,000 inhabitants per day (DID), normalized using population estimates from the World Population Prospects.

Results

Total AMC in Ethiopia rose from 432 million DDDs in 2020 to 485 million DDDs in 2022, with the DID increasing from 10.63 in 2020 to 11.34 in 2022. Antibacterials were the most consumed, making up 98.87% in 2020, 95.96% in 2021, and 99.79% in 2022. Penicillins (J01C) and quinolones (J01M) were the highest consumed classes of antimicrobials.

The majority of antibacterial agents used were from the Access group, comprising 71.14% in 2020, 70.65% in 2021, and 74.2% in 2022. Oral formulations accounted for over 87% of total consumption annually. There was a high reliance on imported antimicrobials, with imports making up 64.76% in 2020 and 74.47% in 2022.

Conclusion

The increasing trend in AMC in Ethiopia from 2020 to 2022 highlights the urgent need to establish and enhance surveillance and reporting systems at national, sub-national, and facility levels to better monitor and manage antimicrobial use.

Regulatory Tips

The Ethiopian AWaRe Classification of Antibiotics, 2024 Version

The AWaRe classification, which stands for ACCESS, WATCH, and RESERVE, is a system introduced by WHO in 2019 to classify antibiotics based on their resistance potential and importance. The Ethiopian Essential Medicines List (EML) 2024 has adopted this system, modified to align with the country's healthcare context. It includes 36 core antibiotics, categorized as Access (14), Watch (15), or Reserve (7) based on pharmacological classes (see Table 1).

- ACCESS Group: These antibiotics cover a broad range of susceptible pathogens and are ideal for empiric treatments with lower resistance risks than Watch and Reserve antibiotics. They should be readily available, affordable, and quality-assured, comprising 60% of institutional antimicrobial use.
- WATCH Group: These antibiotics have a higher resistance potential and include many Critically Important Antimicrobials (CIA) for Human Medicine. They are critical for hospital stewardship programs and should account for less than 40% of institutional use.
- RESERVE Group: Reserved for confirmed or suspected infections by multi-drug-resistant organisms, these antibiotics serve as "last-resort" options and are key targets for stewardship to maintain their efficacy.

The AWaRe system promotes rational antibiotic use and provides tools for antimicrobial stewardship and monitoring. Its implementation aims to increase the use of Access group antibiotics to at least 60% and reduce the reliance on Watch and Reserve antibiotics.

Table 1: AWaRe Classification of Antibiotics in the EEML2024

Access	Watch	Reserve
1. Amoxicillin	1. Amikacin	1. Ceftazidime + Avibactam
2. Amoxicillin + Clavulanic acid	2. Ampicillin + Sulbactam	2. Colistin
3. Ampicillin	3. Azithromycin	3. Linezolid
4. Benzathine benzylpenicillin (Penicillin G, Benzathine)	4. Cefepime	4. Meropenem
5. Benzylpenicillin (Penicillin G)	5. Cefixime	5. Meropenem + Vaborbactam
6. Cefalexin	6. Cefotaxime sodium	6. Neomycin
7. Cefazolin	7. Ceftazidime	7. Polymyxin B
8. Cloxacillin	8. Ceftriaxone	
9. Doxycycline	9. Cefuroxime	
10. Gentamicin	10. Ciprofloxacin	
11. Metronidazole	11. Clarithromycin	
12. Nitrofurantoin	12. Clindamycin	
13. Procaine-benzylpenicillin	13. Norfloxacin	
14. Sulphamethoxazole + Trimethoprim	14. Piperacillin + Tazobactam	
	15. Vancomycin	

News

Ministry of Health and EFDA Unveil Updated Essential Medicines List with Major Revisions

The Ministry of Health (MOH) and the Ethiopian Food and Drug Authority (EFDA) have introduced an updated Essential Medicines List (EML) after a comprehensive review by a multidisciplinary team. This team, comprising the EML Review Technical Working Groups (TWG) and Core Team from various organizations, has ensured that the new list reflects recent advancements in medicine and pharmaceuticals.

Key updates to the EML include the addition of new therapeutic categories, medicines, dosage forms, and strengths. Obsolete, unsafe, or less cost-effective medicines have been removed, with alternative therapies introduced to improve treatment options.

The revised list organizes medicines into 29 major pharmacologic and therapeutic categories, covering 118 sub-categories, including five new major categories and ten new sub-categories. The total number of medicines has increased to 548, up from 498 in the previous edition. A total of 77 new medicines have been added, and 26 medicines have been removed from the list.

To promote the rational use of antibiotics, the Access, Watch, and Reserve (AWaRe) classification system remains in use, aligned with national guidelines and WHO recommendations.

The updated EML serves as a vital resource for healthcare financing, procurement, budgeting, and promoting the safe and appropriate use of medicines. All healthcare professionals are encouraged to adopt the updated list, which will continue to undergo regular reviews.

EFDA Warns Public about Unregistered and Ineffective Artemether Injection

The Ethiopian Food and Drug Authority (EFDA) has issued a public warning regarding an unregistered and ineffective product, Artemether 80 mg/ml injection, following a recent market survey. The product, manufactured by Shinepharm, China, and labeled with Batch No. 231104SPF and a manufacture date of November 2023, was found to lack the active ingredient, Artemether, rendering it both ineffective and unsafe for medical use.

Routine surveillance revealed that this product, distributed under the guise of treating severe malaria, failed to contain the active ingredient Artemether, a critical treatment component. As a result, the drug not only fails to address severe malaria but also endangers patients' health by withholding necessary treatment. The EFDA has urgently advised healthcare providers to avoid using this unregistered product in any capacity.

The EFDA has also directed regional health inspectors to intensify monitoring efforts and take firm action to prevent the distribution of this product. Regional authorities are working to identify outlets still carrying the product and ensure its immediate removal from circulation.

The EFDA reminds the public that all medicines must undergo proper registration and quality control to ensure their safety and efficacy. Healthcare professionals are urged to remain vigilant and report any suspicious medicines to local health offices. Public awareness campaigns will be launched to educate the community about the risks of unregistered medical products.

Consumers are encouraged to check the registration status of medicines before purchase and consult healthcare professionals with any concerns. The EFDA assures the public of its ongoing efforts to uphold the safety and quality of medicines in Ethiopia.

Illegal Drug Circulating in the Market

The Ethiopian Food and Drug Authority (EFDA) has identified an unregistered drug, RELIEF, circulating in the market. This drug, believed to contain diclofenac, paracetamol, chlorpheniramine, and magnesium trisilicate, has not been legally approved by EFDA, making its quality, safety, and effectiveness unknown.

Potential side effects include loss of appetite, stomach pain, nausea, vomiting, dizziness, headaches, skin rashes, and long-term risks such as liver and kidney damage, heart attack, or stroke.

We urge the public to avoid using this drug. If found in your area, please report it immediately by calling EFDA's toll-free number 8482 or contacting regional health regulatory authorities.