



الإدارة المركزية للرعاية الصيدلانية
الإدارة العامة للممارسات الدوائية و الصيدلانية

Pharmacy Practice Newsletter

“Know what’s new... Optimize care”

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Introduction

The Central Administration of Pharmaceutical Care in the Egyptian Drug Authority is keenly interested in upgrading the pharmaceutical services provided to the patient and boosting the pharmacotherapy-related knowledge of all healthcare providers, which will positively impact the patient’s health and safety.

From this point, the General Administration of Drug Utilization and Pharmacy Practice (DU&PP) is pleased to publish the Pharmacy Practice Newsletters, which aims to aid practitioners in their mission to optimize care. Topics related to pharmacotherapy and pharmacy practice will be addressed within our newsletter issues. The newsletter will provide an up-to-date, concise summary that fits perfectly into the healthcare provider’s tight schedule.

We utilize accredited resources and indexed journals integrating the best available research into clinical care, to support the decision-making process for healthcare professionals. To optimize patients’ treatment plans and ensure their safety and efficacy, clinicians must closely follow the literature for any updates related to their practice, given the dynamic nature of the clinical research.

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EDA Publications:

National Guidance for the Rational Use of Duplicate Antimicrobial Therapy

The National Rational Antimicrobial Use Team within the Drug Utilization and Pharmacy Practice Administration has issued the “*National Guidance for the Rational Use of Duplicate Antimicrobial Therapy*”. The guide comes as a part of the EDA’s relentless efforts to rationalize antimicrobial use in collaboration with several stakeholders represented in the National Rational Antimicrobial Use Committee, which has rigorously reviewed this guide.

Aim of the guidance:

- To describe the appropriate use of duplicate antimicrobial therapy.
- To describe best practices in antimicrobial prescribing including antimicrobial agents available in Egypt.
- To serve as a clinical guide and not supersede the clinical judgment of physicians in the management of individual patients.

Introduction:

Combining two or more antibiotics may be necessary when treating certain types of infections. When combined, some antibiotics work synergistically to treat certain types of infections. Others are combined because a broader spectrum of coverage is needed in polymicrobial infections. For example, gentamicin is typically added to a beta-lactam antibiotic for the treatment of gram-positive endocarditis. Infections caused by *Pseudomonas aeruginosa* can be treated with a two-drug combination that includes an antipseudomonal beta-lactam (e.g., piperacillin/tazobactam) plus either an aminoglycoside, ciprofloxacin, or levofloxacin in certain conditions. Combination therapy has also been used to treat multidrug-resistant *Acinetobacter baumannii* and Carbapenem-Resistant Enterobacteriaceae (CRE) in healthcare facilities globally.

Combinations of antimicrobial agents that could constitute unnecessary therapy are a relatively easy target for stewardship intervention. Most commonly, this includes potentially redundant therapy or therapeutic duplication, whereby antimicrobials with an overlapping spectrum of activity are prescribed. This refers to when two antibiotics are covering the same organism, yet only one antibiotic is needed for the job. Exposing a patient to two medications instead of just one can be considered inappropriate, as it needlessly increases a person’s risk for adverse drug events and ecological consequences of antibiotic use (e.g., risk for *Clostridium difficile* infection).

Reports by the CDC indicate that 30% to 50% of antibiotic use in hospitals is unnecessary or unwarranted. (4) There may be several potential reasons that clinicians choose to use redundant antimicrobials, some of which could be improved by the ASP: correcting inadvertent errors within the ordering process and review (e.g. provider forgot to discontinue an existing order when placing a new antibiotic order), correcting misunderstandings about the spectrum of activity, addressing the “more is better” mentality, and addressing concerns about resistant pathogens or source control. CDC suggests that pharmacists should review unnecessarily duplicative antibiotic therapy, including the use of agents with overlapping spectra.

Content of the guide:

- Duplicate Antimicrobial Agents in The Common Practice
- The appropriate use of dual beta-lactams
- The appropriate use of dual anti anaerobes
- The appropriate use of dual anti-pseudomonal
- Policy and Procedures
- Performance Metrics (KPIs)

Where to find the guide:



The ‘*National Guidance for the Rational Use of Duplicate Antimicrobial Therapy*’ is published on the EDA official website and can be accessed via this [LINK](#) or the QR Code.

AMR Insights: One Health Approach and Why It Matters

Introduction

The health of humans, animals, and the environment are all interconnected as they rely on one another. We share the land, resources... and pathogens. Resistant strains of bacteria can spread between and within animal, human, and plant populations and travel through the waterways, soil, and air, infecting wild animals. Antimicrobial-resistant bacteria originating in an animal can be transmitted to humans through the environment, food products, and/or by direct contact.

What is One Health?

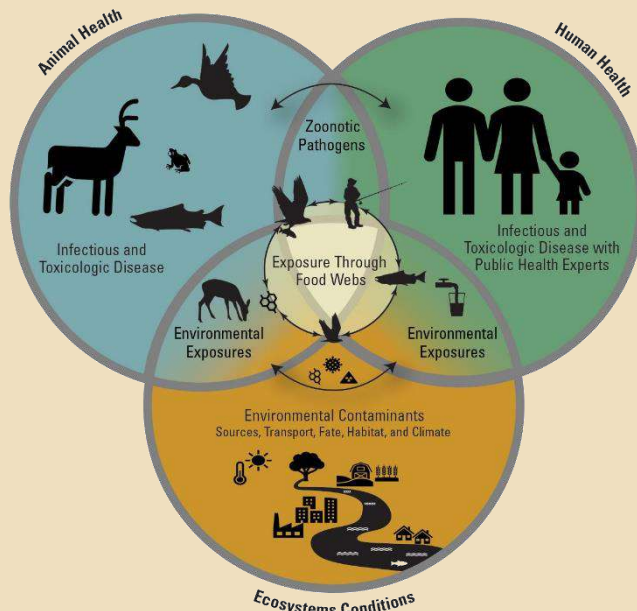
One Health is an integrated and holistic approach to address health threats at the animal-human-environmental interface. It aims to sustainably balance and optimize the health of people, animals and ecosystems. By promoting coordination and communication across multiple sectors a **One Health** approach can achieve better public health outcomes. One Health recognizes that the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and interdependent.

One Health applies to a range of issues, include:

- Antimicrobial resistance (AMR), which happens when germs like bacteria and parasites develop the ability to defeat the drugs designed to kill them and continue growing and spreading
- Zoonotic diseases, which are infectious diseases that are caused by germs that spread between animals and people, such as Ebola, avian influenza, rabies, etc.
- Vector-borne diseases, which affect people who get bitten by a vector (mosquitoes, ticks, lice and fleas) and include dengue fever, West Nile virus, Lyme disease and malaria
- Food safety and foodborne diseases, caused by contamination of food and occur at any stage of the food production, delivery and consumption chain, such as norovirus, salmonella, listeria, etc.
- Environmental health, such as water pollution, air pollution and climate change.

Why is the One Health Concept Crucial?

Through the linking of humans, animals and the environment, One Health can help to address the full spectrum of disease control – from prevention to detection, preparedness, response and management – and contribute to global health security. Joint action is required to preserve antimicrobial efficacy and ensure sustainable and equitable access to antimicrobials for responsible and prudent use in human, animal and plant health. By adopting a One Health approach, countries can take a more holistic and systemic course of action to control AMR.



DU&PP News: World AMR Awareness Week: EDA's Efforts to Combat Resistance

1. Activities Targeting the Public

Society Engagement Approach

Spreading Antimicrobial Awareness to Public Society Sakkara Public Library on 10 November 2024 under “The Fourth National Initiative for Pharmaceutical Care and Pharmacy Practice” with the slogan (Safe Medication....Save Life) to build healthy and aware communities. The attended audience was secondary school students, as EDA works on empowering all society categories and emphasizes their role in the future building a healthy society in alignment with Egypt’s Vision 2030.

Going Blue for AMR

On 18 November 2024, EDA turned one of its buildings’ light colours into blue. The General Administration of Drug Utilization and Pharmacy Practice at the Central Administration of Pharmaceutical Care represented EDA’s participation. This was an announcement and a call for individuals and institutions to spread awareness about antimicrobial use to prevent resistance.

Cairo Runner’s Marathon for Antibiotic Awareness Run

Participation in the sports awareness marathon organized by the Egyptian Drug Authority in partnership with the Ministry of Youth and Sports and several pharmaceutical companies to raise awareness about the rational use of antimicrobials under the slogan (Stay Aware Don’t Take Antibiotics Unnecessarily) on 22 November 2024.

Spreading Antimicrobial Awareness on social media

Publishing awareness materials throughout November about the rational use of antimicrobials on the Egyptian Drug Authority’s official Facebook page for public society in conjunction with World Antimicrobial Awareness Week.



2. Activities Targeted Pharmacy Students

Pharmacy Students Engagement Approach

The Third National Initiative for Pharmaceutical Care and Pharmacy Practice; Knowledge Driven Professions Initiative with the slogan (Minds & Knowledge ... The Best Lead) aims to spread awareness about the safe and effective use of antimicrobials among pharmacy students through conducting visits to different Egyptian universities. This year's visits included the Future University in Egypt (FUE) on 20th November, Al Mansoura University on 26th November and Hertfordshire University on 9th December. Visits included a presentation of EDA activities to combat AMR and discussion of the antimicrobial guides released by the General Administration under the Guide-to-Guide Approach. Additionally, an online webinar was conducted on 3rd December about EDA activities to for pharmacy students at El Galala University to expand EDA's awareness campaigns.



Antimicrobial Awareness Success Story Videos Competition

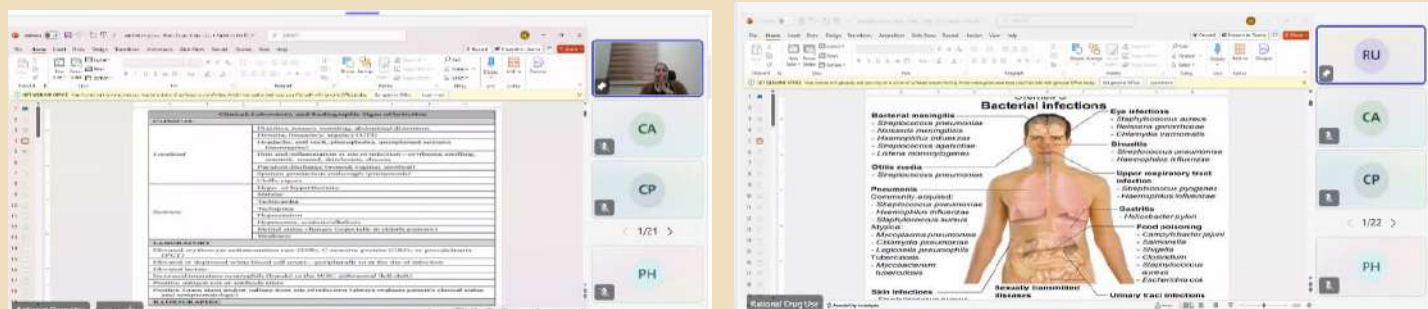
In November, The Drug Utilization and Pharmacy Practice Administration announced the third wave of pharmacy students' competition, which included preparing a success story video for antimicrobial public awareness activities. Videos were submitted and evaluated and the top five participants were announced and invited to be honoured by EDA's Chairman Dr. Ali Al Ghamrawy in a ceremony on 5 December 2024. In cooperation with the World Health Organization, the *Future Fighters* program was also announced and Egyptian universities were invited to nominate two students from each university to participate in the program to qualify them to raise awareness about the antimicrobials rational use and the risk of antimicrobial resistance.



3. Activities Targeted Community Pharmacists

Community Pharmacy Engagement Approach

Spreading Antimicrobial Awareness to Community Pharmacists Under "The Fifth National Initiative for Pharmaceutical Care and Pharmacy Practice; Unlock the Pharmacist Potential Initiative with the slogan (Aware Pharmacist... Aware Society), the General Administration of Drug Utilization and Pharmacy Practice invited community pharmacists for a free online webinar on 24 November 2024 about rational antimicrobial use for encouraging right pharmaceutical practices, in addition to achieving continuous professional development and supporting the community pharmacists who are capable for positive change.



4. Activities Targeted Hospital Pharmacists

Experience Exchange and Guide to Guide Approaches

Spreading Antimicrobial Awareness among Hospital Pharmacists under the Triple E's Hub (Experience Exchange at EDA) and Guide to Guide Approach in EDA El Menial premises on 19 November 2024. The General Administration of Drug Utilization and Pharmacy Practice's team organized a scientific meeting for hospital pharmacists working in different healthcare sectors in Egypt to identify the released Guides by the General Administration of Drug Utilization and Pharmacy Practice for application in different health sectors according to scientific evidence-based resources and guidelines for improving pharmaceutical services and ensuring patient's safety.



5. Activities Targeted Community and Hospital Pharmacists

Spreading Antimicrobial Awareness among Community and Hospital Pharmacists through November by the publication of all Antimicrobial Guides released by the General Administration of Drug Utilization and Pharmacy Practice to more than 1450 community and hospital pharmacists through one social media application specified for spreading all publications of General Administration of Drug Utilization and Pharmacy Practice affiliated to Central Administration of Pharmaceutical Care in Egyptian Drug Authority in conjunction with World Antimicrobial Awareness Week.

About DU&PP

The Drug Utilization and Pharmacy and Pharmacy Practice General Administration (DU&PP) is concerned with rationalizing medication use and reducing medication errors. The General Administration is also concerned with developing pharmaceutical practices, enhancing Egyptian pharmacists' skills, issuing pharmacy practice guidance, preparing national drug lists and the Egyptian drug formulary, and providing numerous training programs. It also aims to raise community awareness and promote the safe and effective use of medications by conducting awareness campaigns and pharmaceutical care initiatives among all segments of society to ensure patient safety and achieve optimal drug use.

Our publications, including clinical practice guides, newsletters and the Egyptian National Formulary, are available at the official EDA website and can be accessed via the following hyperlinks or QR codes:



References

1. https://www.who.int/health-topics/one-health#tab=tab_1
2. <https://www.who.int/news-room/fact-sheets/detail/one-health>
3. <https://iris.who.int/bitstream/handle/10665/363518/9789240059139-eng.pdf?sequence=1>
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