



HOSPITAL
PHARMACY
ADMINISTRATION



Special points of interest:

- Clinical Pharmacy Implementation
- Medication Errors Reporting & Prevention
- Pharmacists Continuous Education
- HPA News & Achievements

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HPA Newsletter

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HPA Latest Updates

Hospital pharmacy Administration attended the 52nd AESGP annual meeting OTC conference that was conducted in Athena, Greece from 31 may 2016 till 3rd of June

Various topics were discussed including :

- Key elements to make progress for self-care in reality
- Getting full support for self-care from stakeholders
- What is needed for innovation in self-care

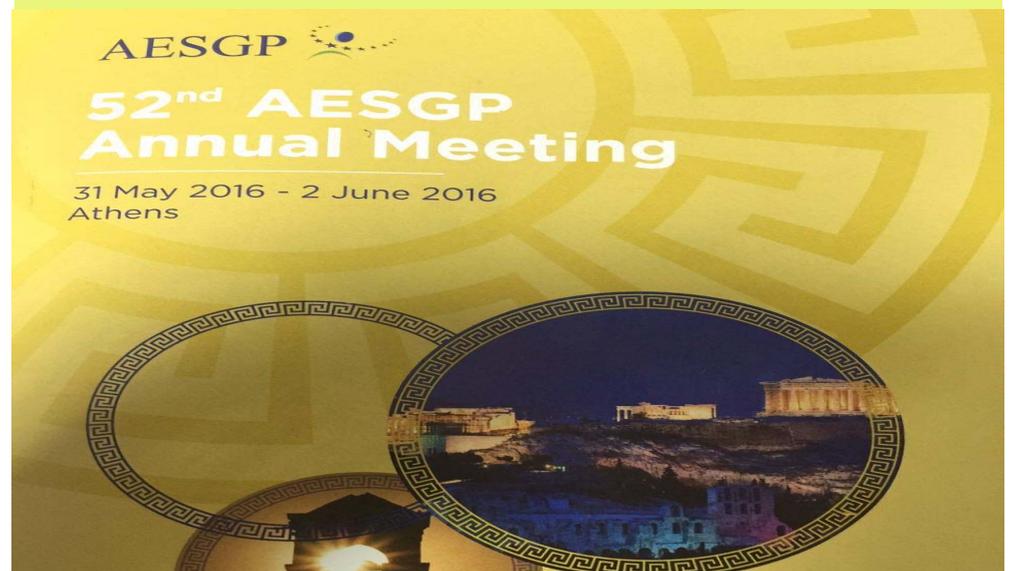
CAPA participated in this conference through presenting " Self care industry and self-medication in Egypt " Power point presentation

Self-care includes actions and measures individuals take to improve their health and well-being, to prevent and decrease the likelihood of disease and to restore health after illness or injury.

Daily lifestyle choices and self-medication are the two main aspects of self-care.



AESGP, the Association of the European Self-Medication Industry, is the official representation of manufacturers of non-prescription medicines, food supplements and self-care medical devices in Europe .



Dear our valued pharmacists:

This section of the newsletter is yours. Now you can **share your ideas, experiences and recommendations** with your peers through our newsletter.

If you wish to publish your article in this section, please send it on the following email address:
hosprix@eda.mohealth.gov.eg

Best articles will be published with your name on the upcoming issues.

**Suggested topics includes (but not limited to):**

- News or success stories regarding clinical pharmacy implementation in your hospital.
- Case discussion illustrating clinical pharmacists' role and interventions.
- Cases of medication errors and recommendations for safe medication practices.
- Scientific publications or unpublished research results in the field of clinical pharmacy and pharmacy practice.
- Any other review article, or expert opinions related to hospital and clinical pharmacy practice in Egypt.



A case of look -alike medication error

NO HARMe received a medication error report involves a pharmacist dispensed Pan-amin G instead of Pan-amin SG to a patient in the ICU, The error actually didn't reached the patient

This error happened due to look alike medications.

Discussion:

-Pan-amin G[®] and Pan-amin SG[®] are both products of Egypt Otsuka that are mixtures of amino acids and Sorbitol used for intravenous nutrition. The concentration of each amino acid is different in each product. The total nitrogen content in **Pan-amin SG** is about **three higher** than nitrogen content in **Pan-amin G**.

-**PAN-AMIN SG** Recommended for provision of amino acids and energy in patients who require intravenous nutrition. Such conditions include surgery, infections, trauma, burns, prolonged disorders of the gastrointestinal tract, hypoproteinemia, malnutrition, preparation of patients for surgery, chemotherapy or radiation therapy, prolonged coma or refusal to eat⁽³⁾

- **PAN-AMIN G** Recommended for provision of amino acids and energy in patients who require intravenous nutrition. Such conditions include hypoproteinemia, malnutrition, disorders of the gastrointestinal tract, infections, inadequate intake or refusal to eat⁽⁴⁾

- This kind of errors occurs due to sound-alike drug name confusion. Sound-alike, Look-alike (LASA) errors is a very common cause of errors all over the world. Each year, an estimated 1.5 million Americans are harmed from medication errors, one-quarter of those errors occur when health-care workers mix up similarly named drugs. The consequences of these errors to patients range from being given a medicine that is ineffective for their condition to potentially fatal adverse reactions to a medicine that they were not prescribed^(1,2)

How to Avoid This Medication Error: ⁽⁵⁻⁸⁾

- 1-Always clarify with the prescriber if you are unsure which drug was ordered, or should be ordered.
- 2-Make sure that medications with similar sounding names are separated into separate sections or shelves.
- 3-Product inventory should be arranged to help
- 4-Use TALL MAN lettering to emphasize the spelling of drug names (Pan-amin **G** and Pan-amin **SG**). Tall Man Lettering (TML) is the practice of writing part of a drug's name in upper-case letters to help distinguish look-

alike drugs from one another to avoid medication errors. ISMP, FDA, the Joint Commission, and other safety conscious organizations have promoted the use of tall man letters as one means of reducing confusion between similar drug names.

- 5-Pharmacists should educate staff about the potential for LASA errors and even identify a list of LASA products dispensed at their site.
- 6-Use verbal or telephone orders only when absolutely necessary. If used, verbal or telephone orders should be documented on the patient's record and read back, spelling the drug name and stating its indication.
- 7-Encourage patients to question nurses or pharmacists about medications that look or sound different than expected.
- 8-When such errors (or near misses) occur, this should be reported and shared between sites for awareness/education of staff.
- 9-Consider the risk of name confusion when adding a new drug to the formulary.
- 10-Manufacturers have also been strongly encouraged to evaluate potential brand names before they register a new drug.

References:

- 1-How to Prevent Sound-Alike, Look-Alike Errors - University of Utah Health Care - [Internet]. Healthcare.utah.edu. 2016 [cited 9 June 2016]. ([Click Here](#))
- 2-similar names or commonly confused medication names [Internet]. safetyandquality.gov.au. 2016 [cited 10 March 2016]. ([Click Here](#))
- 3-Otsuka Pakistan Ltd. [Internet]. Otsuka.pk. 2016 [cited 9 June 2016]. ([Click Here](#))
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- 6-Top 10 Sound-Alike & Look-Alike Drugs [Internet]. downstate.edu/. 2016 [cited 10 March 2016]. ([Click Here](#))
- 7-Progress with preventing name confusion errors [Internet]. Ismp.org. 2016 [cited 10 March 2016]. ([Click Here](#))
- 8- Schmidt B. Look-Alike Drug Name Errors [Internet]. Psqh.com. 2016 [cited 10 March 2016]. ([Click Here](#))



“The existence of confusing drug names is one of the most common causes of medication errors”



Acute coronary syndrome “STEMI” - Case

Embaba Hospital

Presenting Complaint:

H.A is a 43 years old male patient, 85 kg. She was admitted to the ICU on 28/5/2016 suffering from severe chest pain.

Diagnosis:

Inferior myocardial infarction received streptokinase in national heart institute.

Patient History:

Heavy smoker, unstable angina.

Medication History:

Lipitor 40mg, Aspirin 75mg, capoten 25mg ,

Subjective:

The patient was suffered from: fatigue, malaise, Chest discomfort.

Objective:

1. Laboratory Investigation:

Hb 12 u/L, **WBCs** $11.8 \times 10^3 \mu\text{L}$, **RBCs** 4 μL ,
Na 138 mEq/L, **K** 4.5 mEq/L, **S. Cr** 3.5 mg/
dL, **PLT** 350 μL

2. Physical Examination:

Vital Signs: **BP**: 130/80 , **HR**: 90

3. Diagnosis:

STEMI

Assessment:

Pharmaceutical related problems:

- STEMI
- Renal impairment

Problem 1: Treatment of STEMI:

Etiology: Atherosclerosis is the disease primarily responsible for most acute coronary syndrome (ACS) cases. Approximately 90% of myocardial infarctions (MIs) result from an acute thrombus that obstructs an atherosclerotic coronary artery. ([Click Here](#))

Current Therapy:

- Aspidoc 75mg 2 tablet /24 hrs
- Fraxiparin 0.6ml /12hrs
- Ator 40mg /24hrs
- Zantac 50mg amp. / 8 hrs
- Plavix 75mg /24hrs
- Capoten 25mg /8hrs
- Nitroderm patch 5mg 16 hrs/24 hrs
- Concor 2.5mg/2hrs

Therapy Indicated: ([Click Here](#))

Plan:

Problem 1: Treatment of STEMI:

Therapeutic Objective:

- initial therapy for acute MI is percutaneous coronary intervention (PCI), or coronary artery bypass graft (CABG) surgery.
- Specific prehospital care includes the following:
 - Intravenous access, supplemental oxygen, pulse oximetry
 - Immediate administration of aspirin en route
 - Nitroglycerin for active chest pain, given sublingually or by spray

- Fibrinolysis is an important reperfusion strategy, particularly in settings where primary PCI cannot be offered to STEMI patients within the recommended timelines ⁽¹⁾

Interventions:

- PCI (within 90 min.) achieves superior reperfusion outcomes and is associated with less complications, death, and long-term complications of STEMI when compared to fibrinolytic therapy
- It is very important to rapidly assess the following to reach a decision about administration of fibrinolytic therapy:
 - The time from onset of symptoms (within 12 hours after symptomatic onset)
 - The risk of complications related to STEMI
 - The risk of bleeding with fibrinolysis therapy ⁽²⁾

Monitoring Parameters:

- ECG, ECHO, S.cr, cardiac enzymes

Clinical Pharmacist Intervention:

Problem 1: Treatment of STEMI:

- Caution and monitoring SCr while taking capoten .

Patient Education:

Patient counseling for the following:

- Stop alcohol and smoking
- Limit the amount of saturated fat & salt
- Physical activity and exercise & reduced weight ⁽³⁾

Quiz:

What is the preferred anticoagulant In case of renal impairment ?

- heparin
- Enoxaparin .
- Warfarin

2. Which of the following drugs need dose adjustment ?

- Aspidoc
- Concor.
- Zantac

3. Do you have any further recommendations?

Please, contact us at:
hosprx@eda.mohealth.gov.eg

References:

1. Myocardial Infarction Treatment & Management: Approach Considerations, Prehospital Care and Initial Management, Emergency Department Care and In-Hospital Management [Internet]. Emedicine.medscape.com. 2016 [cited 8 June 2016]. ([Click Here](#))
2. Myocardial Infarction Treatment & Management: Approach Considerations, Prehospital Care and Initial Management, Emergency Department Care and In-Hospital Management [Internet]. Emedicine.medscape.com. 2016 [cited 8 June 2016]. ([Click Here](#))
3. After a Myocardial Infarction. Heart Attack Information | Patient [Internet]. Patient. 2016 [cited 8 June 2016]. ([Click Here](#))



“Acute coronary syndrome (ACS) refers to a spectrum of clinical presentations ranging from those for ST-segment elevation myocardial infarction (STEMI) to presentations found in non-ST-segment elevation myocardial infarction (NSTEMI) or in unstable angina .”



Last Month Quiz Answers

1. B
2. A

Egyptian Scientific Publication: Study of oxidative stress in different clinical severities of acne vulgaris

Yehia F El Gareem¹, Rana AM Ahmed¹, Magdy A Ragab¹, Abla A AbouZeid²

ABSTRACT Acne vulgaris is a multifactorial disease, but recent studies have focused on the role of oxygen free radicals and antioxidant enzymes. Malondialdehyde (MDA) is the end product of lipid peroxidation and is a good marker of free radical-mediated damage and oxidative stress. Superoxide dismutase (SOD) represents the major cellular defense against superoxide anions.

Objective

The objective of this study was to study the role of oxidative stress in acne vulgaris and to detect a possible link with the different clinical severities.

Patients and methods

Fifty patients with acne vulgaris and 20 healthy controls were included in this study. The severity of the disease was assessed using the Global Acne Grading System. The levels of SOD in erythrocytes and MDA in plasma were measured using a spectrophotometer.

Results

Although higher SOD levels and mean values were present in patients, there was no statistically significant difference compared with the controls. MDA levels showed a significant difference between patients and controls ($P <$

0.05), with MDA being higher in patients, indicating a condition of oxidative stress that had resulted from a high level of lipid peroxidation in acne patients. Comparison of SOD levels in patients showed that patients with severe acne had the lowest levels in comparison with patients with mild and moderate acne ($P < 0.001$). SOD levels were the highest in patients with mild acne. In terms of MDA levels, patients with severe acne showed the highest plasma MDA levels compared with those with mild and moderate ($P < 0.05$) acne, suggesting an increase in reactive oxygen species production overwhelming the antioxidant capacity. The lowest MDA levels were observed in mild acne.

Conclusion

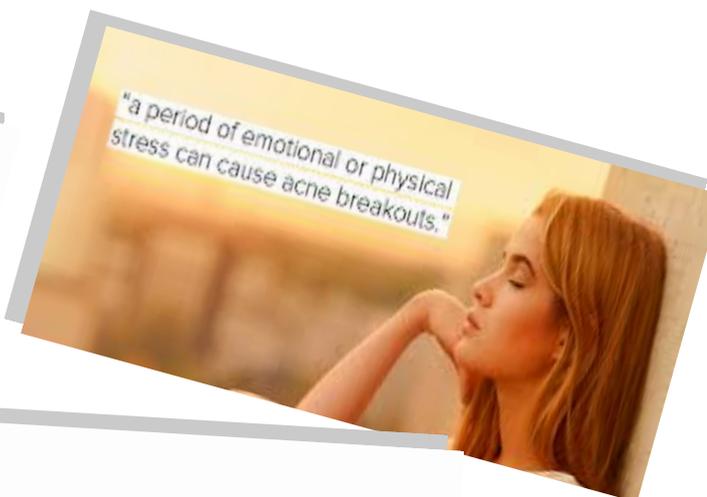
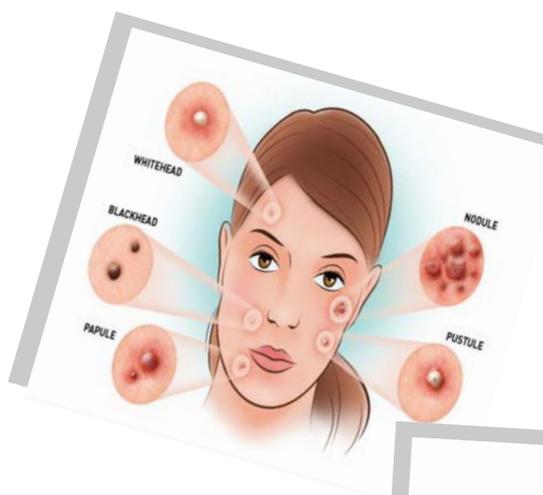
Oxidative stress may play a role in the etiopathogenesis of acne and/ or the progression of the disease. Coadministration of antioxidant drugs with various lines of treatment of acne might be helpful, especially for those with inflammatory lesions.

Keywords: Acne, malondialdehyde, oxidative stress, superoxide dismutase

To read the full article, please [\(Click Here\)](#)



“ The body responds to stress by directing blood flow and oxygen to areas vital for fighting the stress, and withdraws from other areas, including the skin.”





HOSPITAL PHARMACY ADMINISTRATION



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HPA

Our Newsletter

The Hospital Pharmacy Administration Newsletter aims to publicize up-to-date news, information, resources, and recent healthcare topics that have an impact on the patient's quality of care in addition to practices serving physicians and pharmacists. A main goal of this publication is to send our news and updates on health care drug related issues, recently reported and have direct impact on Clinical and Hospital Pharmacy practice in Egypt.

Hospital Pharmacy Administration (HPA)

Vision

To implement and spread clinical awareness among our hospital pharmacists to ensure better patient quality of care.

Mission

To manage and assure that hospital pharmacists meet each individual patient's drug-related needs through provision of pharmaceutical care services.

Goals and Objectives

Increase awareness of hospital Pharmacists on the importance of applying clinical knowledge in their pharmacy practice through:

- Plotting an appropriate pharmaceutical care plan for each patient according to his medication use strategy.
- Helping healthcare team through promptly responding to drug information requests.
- Integrating patient counseling into the process of dispensing.

NO HARMe

NO HARMe is a national voluntary medication error and 'near miss' reporting program founded for the purpose of sharing the learning experiences from medication errors. Implementation of preventative strategies and system safeguards to decrease the risk for error-induced injury and thereby promote medication safety in healthcare is our collaborative goal.

To report a medication error to NO HARMe:

- Visit our website: www.eda.mohealth.gov.eg
- or,
- Email us at:
medication.errors.system@gmail.com

NO HARMe guarantees confidentiality
and security of information received



**WHEREVER THE ART OF
MEDICINE IS LOVED,
THERE IS ALSO A LOVE
FOR HUMANITY**

