



HOSPITAL
PHARMACY
ADMINISTRATION



Special points of interest:

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

Inside this issue:

- | | |
|---|---|
| HPA Latest Updates | 1 |
| Hospital practice | 2 |
| A case of transition of care errors | 3 |
| Septic Shock - Case | 4 |
| A comparative study between fondaparinux, a low-molecular-weight heparin, and recombinant hirudin in thromboembolic prophylaxis after major abdominal surgery in the surgical intensive care unit | 5 |

HPA Newsletter

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HPA Latest Updates

In cooperation between ministry of health and 57357 hospital to improve hospitals and pharmaceutical services through the preparation of "center of excellence" project.

A team of CAPA and 57357 hospital visited number of hospitals to be evaluated through a strict criteria and situation analysis was made, accordingly three hospitals were chosen " shoubra General Hospital, Ahmed Maher Teaching Hospital , Ismalia oncology center" and Gantt chart plan was developed for each hospital in cooperation with hospital administration and pharmacist in hospital.

It was agreed that the development period will take one year till may 2017 and this will be done through:

1-providing man power

2-provide necessary hospital requirements

3-on job training

4-practical training

5-theoretical training courses

Output from this development period:

- Matching work in pharmacy in each chosen hospitals with national medication management system.
- Clinical pharmacy implementation in each department in hospital.
- TDM services provided.
- I.V mixing provided .



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- Scientific publications or unpublished research results in the field of clinical pharmacy and pharmacy practice.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.



“Transitions of care” refers to the movement of patients between health care practitioners, settings, and home as their condition and care needs change.”



A case of transition of care errors

NO HARMe received the following cases:^(1,2)

- Patient with chronic AF taking marivan on home admitted to ICU the physician forget to prescribe marivan.
- A patient with ALL-T cell, admitted to the hospital for his 4th high dose methotrexate. By asking the patient they discovered that he didn't take purnithol (6-MP) for 2 weeks. The patient said that no one told him to take 6-MP tablets at home.
- A patient with a history of IHD was not given her β -blocker in the hospital.
- The physician ordered Risek IV and the patient is taking Pepzol from outside.
- Nitromack was not written for a patient with history of IHD and she had been on Nitromack before admission to the hospital.

All errors due to ineffective transition of care.

Discussion: ^(1,2)

“Transitions of care” refers to the movement of patients between health care practitioners, settings, and home as their condition and care needs change. Finally, the patient might return home, where he or she may receive care from a visiting nurse or support from a family member or friend. Unfortunately, these transitions do not always go smoothly. Ineffective care transition processes lead to adverse events and higher hospital readmission rates and costs

Ineffective transition of care occurs due to: Communication breakdowns. Care providers do not effectively or completely communicate important information among themselves, to the patient, or to those taking care of the patient at home in a timely fashion.

Patient education breakdowns. Patients may lack a sufficient understanding of the medical condition or the plan or care.

Accountability breakdowns. In many cases, there is no physician or clinical entity that takes responsibility to assure that the patient's health care is coordinated across various settings and among different providers.

Transition breakdowns or miscommunication can lead to: patient or caregiver confusion about the patient's condition and appropriate care, lack of follow-through on referrals, Medication errors, and sub-optimal use of medicines.

Effective transition of care can be done by: Improving communication during transitions between providers, patients and caregivers and implementing standardized medication reconciliation.

What is Medication Reconciliation?

It is a systematic and comprehensive review of all the medications a patient is taking (known as a BPMH) to ensure that medications being add-

ed, changed or discontinued are carefully evaluated. It is a component of medication management and will inform and enable prescribers to make the most appropriate prescribing decisions for the patient at all transition points with hospitals. ⁽³⁾

How to Avoid This Medication Error:

The following medication errors can be prevented by reconciling medications: ⁽⁴⁾

- failure to prescribe clinically important home medications while in hospital
- incorrect doses or dosage forms
- missed or duplicated doses resulting from inaccurate medication records
- failure to clearly specify which home medications should be resumed and/or discontinued at home after hospital discharge
- duplicate therapy at discharge (result of brand/generic name combinations or hospital formulary substitutions)

The process of medication reconciliation involves the following key components: ⁽⁵⁾

- Obtaining the most complete and accurate list possible of the patient's current regularly taken medications, known as the Best Possible Medication History (BPMH).
- Assign primary responsibility for collecting the home list to someone with sufficient expertise.
- Using the BPMH when writing admission, transfer and discharge medication orders.
- Comparing the BPMH with the admission, transfer or discharge medication orders, identifying and bringing any discrepancies to the attention of the team and, if appropriate, making changes to the orders and documenting all changes.

References:

- The need for a more effective approach to continuing patient care [Internet]. jointcommission.org. 2016 [cited 17 July 2016]. ([Click Here](#))
- Improving Transitions of Care [Internet]. ntocc.org. 2016 [cited 17 July 2016]. ([Click Here](#))
- ISMP Canada Medication Reconciliation Project [Internet]. ismp-canada.org. 2016 [cited 17 July 2016]. ([Click Here](#))
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- What is Medication Reconciliation? - Medication Reconciliation: A Learning Guide [Internet]. Meds.queensu.ca. 2016 [cited 17 July 2016]. ([Click Here](#))

Septic Shock - Case

Embaba General Hospital

Presenting Complaint:

H.L is a 45 years old female patient, 80 kg. She was admitted to the ICU on 5/7/2016 suffering from dehydration, fever, fatigue.

Diagnosis:

Septic shock

Patient History:

DKA

Subjective:

The patient was suffered from: Confusion , Anxiety, Difficulty breathing, Fatigue, malaise, Nausea and vomiting

Objective:

1. Laboratory Investigation:

Hb 9.8 u/L, **TLC** 27, **WBCs** 15×10^3 μ L, **RBCs** 2 μ L, **K** 3.1 mEq/L, **S. Cr** 6 mg/dL, **PLT** 189 μ L

2. Physical Examination:

Vital Signs: **BP:** 70/60 , **RBG:** 450

3. Diagnosis:

Septic shock, Post arrest

Assessment:

Pharmaceutical related problems:

1. Septic shock
2. Renal impairment
3. DKA

Problem I: Treatment of Septic shock :

Etiology: Sepsis is defined as life-threatening organ dysfunction due to dysregulated host response to infection ([Click Here](#))

Current Therapy:

- Ceftriaxone 2gm/24hrs
- Levophed amp. /5% glucose
- Fraxiparin 0.3ml /24hrs
- Zantac amp./12hrs
- Ringer solution 100ml/hr
- Potassium 5 amp./ 500ml ringer
- Perfelgan / 6hrs

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

Plan:

Problem I: Treatment of Septic shock :

Therapeutic Objective:

- Hypovolemia is an important factor contributing to shock and tissue hypoxia; therefore, all patients with sepsis require supplemental fluids.
- Vasopressor administration is required for persistent hypotension
- Dobutamine is an inotropic agent that results in increased cardiac output.
- Empiric antimicrobial therapy should be initiated early in patients experiencing septic

shock⁽¹⁾

Interventions:

- Should measuring Crcl and All doses should be adjusted according to the patient Crcl.

Monitoring Parameters:

- Crcl, RBG, CVP, BP, ketone bodies,

Clinical Pharmacist Intervention:

Problem I: Treatment of Septic shock :

- Zantac is contraindicated in this renal impairment case.
- Fraxiparin is contraindicated in this case.
- Insulin dose should be adjusted to be taken as 0.1 unit/kg/hr

Patient Education:

Patient counseling for the following:

- I. Wash your hands often with soap and water
- II. Always cover your mouth when you cough
- III. Avoid people who have a cold or the flu
- IV. Vaccines decrease your risk of getting certain infections, such as the flu or pneumonia ⁽²⁾

Quiz:

1. When the patient is suspected to have DKA IF random RBG?

- A. > 200mg/dl
- B. > 400 mg/dl
- C. > 600 mg/dl

2. What is the differences between sepsis, septicemia, septic shock ?

3. Do you have any further recommendations?

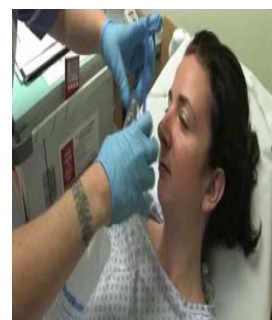
Please, contact us at:
hosprx@eda.mohealth.gov.eg

References:

1. Septic Shock Treatment & Management: Approach Considerations, General Treatment Guidelines, Goals of Hemodynamic Support [Internet]. Emedicine.medscape.com. 2016 [cited 13 July 2016]. ([Click Here](#))
2. Sepsis (Discharge Care) - What You Need to Know [Internet]. Drugs.com. 2016 [cited 13 July 2016]. ([Click Here](#))



“worldwide sepsis is one of the most common deadly disease .”



Last Month Quiz Answers

1. A
2. C

Egyptian Scientific Publication:**A comparative study between fondaparinux, a low-molecular-weight heparin, and recombinant hirudin in thromboembolic prophylaxis after major abdominal surgery in the surgical intensive care unit***Magda F Yehyia, Hatem A Atalla, Ezzeldin S Ibrahim, Sadek A Sadek, Hager H Mohammady***ABSTRACT****Objective**

Evaluation of the safety and the efficacy of different anticoagulants in thromboembolic prophylaxis after major abdominal surgeries.

Background

Thromboembolic events are serious complications after major abdominal surgeries, and there are different modalities to prevent them.

Materials and methods

Sixty patients who underwent major abdominal surgery were assigned in a randomized, double-blinded manner and classified into three groups: group A (n = 20) was started on enoxaparin at a daily dose of 40 mg. Group B (n = 20) was given recombinant hirudin 15 mg twice daily. Group C (n = 20) was given fondaparinux 2.5 mg subcutaneously daily. The duration of treatment was 5-12 days. The efficacy of the three drugs was compared by the occurrence of DVT (assessed by Doppler ultrasound) or fatal and nonfatal pulmonary embolism (by computed tomogra-

phy). The safety was assessed by postoperative bleeding in terms of the number of transfused whole blood units, plasma expanders, or packed red blood cells and fatal bleeding.

Results

Results showed that enoxaparin, fondaparinux, and recombinant hirudin were equally effective in the prevention of thromboembolism. The least risk of postoperative bleeding was noticed in patients receiving enoxaparin in comparison with patients receiving fondaparinux or recombinant hirudin.

Conclusion

Enoxaparin, hirudin, and fondaparinux are equally effective in protection against thromboembolic events in patients undergoing major abdominal surgeries; however, enoxaparin is superior to the others regarding safety.

Keywords: enoxaparin, fondaparinux, recombinant hirudin, thromboembolic prophylaxis

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



“ Enoxaparin, hirudin, and fondaparinux are equally effective in protection against thromboembolic events .”

Enoxaparin

Hirudin

FONDAPARINUX



HOSPITAL PHARMACY ADMINISTRATION



Central Administration of
Pharmaceutical Affairs (CAPA)

Hospital Pharmacy
Administration (HPA)

21 Abd El-Aziz Al Soud Street,
El-Manial,
Cairo,
Egypt

Phone: +202 25354100

Fax: +202 23610497

E-mail:

hosprx@eda.mohealth.gov.eg

Visit Our Website:

www.eda.mohealth.gov.eg

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**

