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Pharmacy Department
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THE PHARMACY NEWSLETTER

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Pharmacy Newsletter intends to provide information regarding the Pharmacy and Therapeutic Committee's decisions, current concepts in drug therapy, MOH (Pakistan), FDA (USA), CSM (UK) and other regulatory agencies warnings, drug interactions, ADR and matters related to drug usage.
Opinions expressed are of the authors and do not necessarily represent AKUH views / recommendations.
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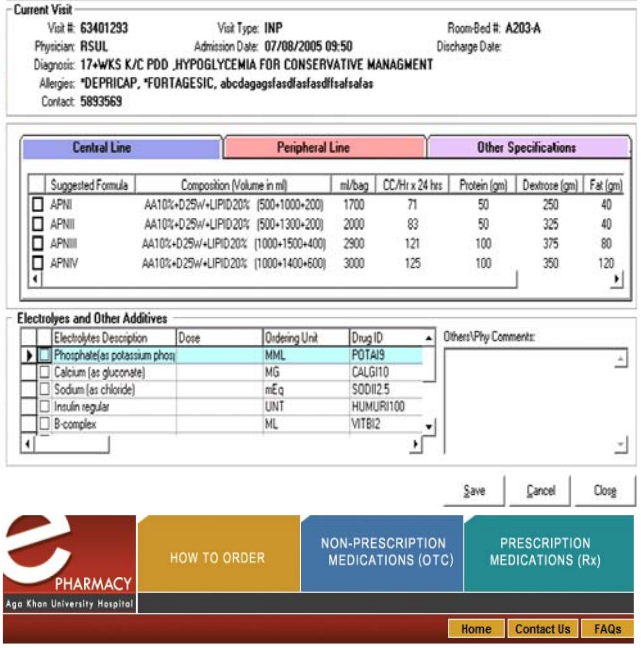

As part of efforts toward continous improvment, department of pharmacy has introduced an innovative way of medicine supply to the employees through the new "e-pharmacy" service.

With this new system, you will have the ease of placing orders at the comfort of your work places without the need to stand in long queues at the pharmacy.

This system is specially designed for the over the counter (OTC) drugs. The medicines can then be picked from a specific pharmacy within a few hours of order placement.

We request your continued support in ensuring the smooth running of the services.

PHARMACY NEWS

E-Pharmacy Goes Live: Pharmacy services has successfully implemented a computerized OTC drug ordering facility for employees only. This project will decrease the waiting times, as well as enhance both internal and external customer satisfaction.

Computerized Total Parenteral Nutrition(TPN) Order Entry: After Institute of Safe Medication Practices (ISMPs) declared TPN as High Alert medication, pharmacy embarked on I.T. solutions to ensure patient safety. With the new computerised TPN ordering form, errors related to incorrect dose and illegible handwriting are avoided.

Online Live/Recorded Continuous Education (C.E) for Pharmacists: To keep the pharmacists abreast of latest information, C.E. system was modified, incorporating live sessions from the various C.E. conducting authorities of USA.

Computerized Record Keeping of Extemporaneous Compoundings: Proper documentation, quantitative and qualitative analysis of data, and product traceability is now made possible.

Pharmacist-Run Diabetes Education Service: Pharmacists are now part of the team providing services in conjunction with the Diabetes Clinic. Pharmacists provide education services on proper medication usage, enhancing glycemic control and use of devices.

Warfarin Monitoring (Clinical Indicator): To improve the patient safety related to Warfarin, Drug and Poison Information Centre has started the strict monitoring of all in-patients on Warfarin. Dose management guides have been placed in all satellite pharmacies to monitor the response to Warfarin and avoid toxicity.

Revamping of Clinical Pharmacy Service and Pharmacy Training Programme: Clinical Pharmacy Service acquired a fresh look when a dedicated pharmacist was engaged in overseeing the service. The major initiatives include training and credentialing of staff, revision of job description and performance evaluation scores developed to gauge the over all efficacy of the process.

Patient Education Service : Drug Information Centre After successful completion of a pilot in Nazerali Walji Building, DPIC started patient education service on medication usage. This resulted in a good response from patients, several of whom benefitted by knowing proper and safe use of their medicines.

Point of Care Pharmacy Programme : The programme underwent complete revamping in 2007. The floors covered by clinical pharmacists include: Intensive Care Units (ICU, CICU, CCU, NICU), Paediatrics, C2, C1 stroke unit, Gastroenterology and Psychiatry wards. Total cost saving to the patients in the year 2007 was Rs. 44’89000.

FDA ALERTS

Fentanyl Transdermal System

The Food and Drug Administration (FDA) issued an update that highlights important information on appropriate prescribing, dose selection, and the safe use of the fentanyl transdermal system (patch). FDA received reports of death and life-threatening advers events related to fentanyl overdose that have occurred when the fentanyl patch was used to treat pain in opioid-naive patients and when opioid-tolerant patients have applied more patches than prescribed, changed the patch too frequently, and exposed the patch to a heat source. The fentanyl patch is only indicated for use in patients with persistent, moderate to severe chronic pain who have been taking a regular, daily, round-the-clock narcotic pain medicine for longer than a week and are considered to be opioid-tolerant. Directions for prescribing and using the fentanyl patch must be followed exactly to prevent death or other serious side effects from fentanyl overdose.

Cough and Cold Medications

FDA informed consumers and healthcare professionals that it has completed its review of information regarding the safety of over-the-counter (OTC) cough and cold medicines in children under two years of age and recommends that these drugs not be used to treat children in this age group because serious and potentially life-threatening side effects can occur. FDA's recommendation is based on both the review of the information the Agency received about serious side effects in children two years and under age group and the discussion and recommendations made at the October 18 -19, 2007, public advisory committee meeting at which this issue was discussed. It is advised that health care profesionals avoid using flu and cold preparations in children under 6 years old.

Cefepime

The FDA issued an early communication about the ongoing review of new safety data and the request for additional data to further evaluate the risk of death in patients treated with Cefepime. An article in the May 2007 issue of The Lancet Infectious Diseases raised the question about increased mortality with the use of Cefepime, a broad spectrum B-lactam antibiotic currently approved for the treatment of a variety of infections due to susceptible strains of microorganisms. The article describes a higher all-cause mortality in patients treated with Cefepime compared to other B-lactam antibiotics.

Desmopressin Acetate

The FDA has asked to update the prescribing information for desmopressin to include important new safety information about severe hyponatremia and seizures. Certain patients, including children treated with the intranasal formulation of the drug for primary nocturnal enuresis (PNE), are at risk for developing severe hyponatremia that can result in seizures and death. As such, desmopressin intranasal formulations are no longer indicated for the treatment of primary nocturnal enuresis and should not be used in hyponatremic patients or patients with a history of hyponatremia. PNE treatment with desmopressin tablets should be interrupted during acute illnesses that may lead to fluid and/or electrolyte imbalance. All desmopressin formulations should be used cautiously in patients at risk for water intoxication with hyponatremia.

Avandia (Rosiglitazone)

New information from the FDA on black box warning for Avandia refers to a meta-analysis of 42 clinical studies, that showed Avandia to be associated with an increased risk of myocardial ischemic events such as angina or myocardial infarction (MI). At this time, there is not enough evidence to indicate that the risks of MI or death are different between Avandia and some other oral type 2 diabetes treatments.

HEPARIN: AN UPDATE

Heparin is commonly used before certain types of surgery, including coronary artery bypass graft surgery and in renal failure patients before they undergo dialysis. In some situations, heparin treatment is initiated using a high bolus dose given directly into the bloodstream (intravenously) over a short period of time, usually less than one hour. The recently reported adverse drug reaction (ADR) of heparin have been associated with the multidose vials of heparin as well as bolus administrations. The cause of the ADR is traced to the presence of a contaminant, a highly sulfated chondriotin sulfate as an adulterant. The FDA has taken up on itself the testing of both the Active Pharmaceutical Ingredient as well as the process of preparation to find out the root cause of the problem.

The concern regarding contamination of Heparin products as well as the ADRs reported has become a global issue. The Heparin generics available locally are also procured from similar suppliers.

The following guidelines can be adopted to minimise the adverse effects:

- Administer heparin as an infusion (not a bolus) whenever possible.

-Use the lowest dose necessary at the slowest infusion rate acceptable to obtain the desired clinical effect.

-Closely monitor the patient for adverse events, particularly hypotension and signs and symptoms of hypersensitivity and ensure that resuscitation equipment is available.

-Consider pretreatment with corticosteroids (cortisone type medicines) or antihistamines (drugs that relieve the symptoms of allergic reactions) although it is not known if such pretreatment is effective.

ADVERSE DRUG REACTION UPDATE : PETHIDINE INDUCED RASHES

Pethidine is amongst the frequently used narcotic analgesics, often used for the management of pain in surgery. Pethidine induced rash has been one of the most frequently reported ADR. The rashes are typically itchy in nature. The intravenous (IV) injection of Pethidine can bring about allergic phenomena due to the endogenous release of Histamine. This reaction is typically non-lethal but hinders in patient comfort. Proper administration techniques can prevent the occurrence of these incidences .Intramuscular route is suggested for all purposes, IV route can be used when IM route is contraindicated or if there is an emergency. For IV, dilute the doses in 1:1 ratio (e.g.: 1mg in 1 ml), administer as bolus in 15-30 minutes or slow IV push over 5 minutes .Maximum concentration recommended is 10mg/ml. This ADR may also be minimised by the use of systemic or topical antihistamines, corticosteroids etc. (Muhammad Hammad, Pharmacist)

WARFARIN INTERACTION UPDATE

Warfarin and Enteral Feeds

Patient on enetral feed tend to have a higher serum Vitamin K level due to increased absorption of readily available Vitamin K in most enteral feed formulas (Isocal, Ensure etc). Besides this, the soya protein content in enteral feeds complex Warfarin and impede its absorption. Patients on concomittant eneteral feeds and warfarin have been seen to have an INR below the therapeutic range. In order to avoid this, it is recommended to space the enteral feed and Warfarin dosing and monitor for sub-therapeutic INR.

Warfarin and Post Partum Doses

Pregnancy and puerperium are hypercoaguble states that last ten to eleven months in total. Women who are postpartum often require larger doses of warfarin as well as a longer time period to reach therapeutic INR than non-pregnant women. Hence it is recommended to start from a higher dose in this population.

References:

1. www.fda.gov/medwatch/safety/2007/safety07.htm#Fentanyl

2. www.fda.gov/medwatch/safety/2008/safety08.htm#cough

3. www.fda.gov/medwatch/safety/2007/safety07htm# carbama zepine

4. www.fda.gov/medwatch/safety/2007/safety07.htm#Cefepime

5. www.fda.gov/medwatch/safety/2007/safety07.htm#Avandia2

6. www.fda.gov/medwatch/safety/2007/safety07.htm# Desmopressin

(accessed on 12.02.08).

7. © 1974 - 2008 Thomson MICROMEDEX

8. Louis E. Penrod MD, Joanne B. Allen MD and Leonard R. Cabacungan MD (2001) ; Warfarin resistance and enteral feedings: 2 Case reports and a supporting IMedicine and rehabilitation; Volume 82 (9); Pgaes 1270-1273

9.Rehabilitation; Volume 82 (9) : Pages 1270-1273. Brooks, Cath; Rutherford, Jane M ; Gould, Jane; Ramsay, Margaret M; James, David K. (2002) ; Warfarin dosage in postpartum women: a case-control study, International Journal of Obstetrics & Gynaecology, Volume 102 (2), Pages 187-190.