Why Is Individually Designed Parenteral Therapy Important During Emergency Events?

Tajda Miharija-Gala; Spela Urh; Mojca Lubej
Pharmacy, University Medical Centre, Ljubljana, Republic of Slovenia

The pharmacy of the University Medical Centre (UMC) prepares individually tailored therapy for parenteral use. All types of individual therapy require a high level of professional knowledge and sophisticated equipment. Parenteral therapy used in pediatrics, mixtures for total parenteral nutrition (TPN), cytotoxic parenteral therapy, and mixtures of analgesics for pain therapy are prepared in aseptic areas in which there is no risk of contamination with micro-organisms, mechanical particles, or pyrogens. The preparation under aseptic conditions is carried out in accordance with the current regulations of the European Pharmacopoeia.

Parenteral solutions of drugs for pediatric patients are prepared in individually adjusted doses by the pharmaceutical technician in the pediatric unit. As there is a lack of approved medicinal products in dosage forms for children, the whole responsibility for correct pediatric parenteral therapy lies with the pharmaceutical and the medical staff. Total parenteral nutrition (TPN) is the intravenous supply of nutrients, electrolytes, microelements, and vitamins to the patient in quantities tailored to his or her individual needs. Some solutions of electrolytes, nutrients, and microelements required for TPN admixtures are prepared in the hospital pharmacy.

Cytotoxic preparations for parenteral administration are produced using a centralized, validated procedure and are designed individually. Despite exceptional conditions due to an emergency event, proper parenteral therapy must be ensured, although in a given situation, the number of qualified personnel may be too small and the number of patients requiring treatment too high.

Keywords: administration, parenteral; cytotoxic agents; pediatrics; pharmacy; preparation; regulations; total parenteral nutrition
Prehosp Disast Med 2003:18:s(1)s9.
E-mail: tajda.gala@kclj.si

Design for the New Production Line for Tablets in the Galenical Laboratory Unit of Lekarna Ljubljana

Mag Liljana Cop
Lekarna Ljubljana, Slovenia

Galenical laboratory units of public pharmaceutical institutions are being transformed from supporting units of their pharmaceutical institutions into units for small-series production of pharmaceutical products. Increases in production also mean development in the sense of improving quality of products and services. This is why galenical laboratory units are being developed in the direction of fulfilling the requirements of good manufacturing practice that is compulsory for all manufacturers. Our work is coordinated to the utmost extent with the requirements of good manufacturing practice: the biggest problem in this respect, however, are validations of manufacturing procedures, since certain stages of manual work include manufacturing processes. Nevertheless, all the required stages for machinery design have been carried out for the purpose of the planned investment (purchase of a new machine for the production of tablets).

Keywords: laboratories, galenical; investment; manufacture; pharmaceuticals; production; quality assurance
Prehosp Disast Med 2003:18:s(1)s9.
E-mail: darja.frankic@lek-zbor.si

Finasteride and Prazosin Mixed Therapy in Patients with Benign Prostatic Hyperplasia

Col. Yousef Agha Alaie, MD; Saeed Saheb Kashaf, MD; Behzad Najafian, MD
Army University of Medical Science

Benign prostatic hyperplasia (BPH) is the most common cause of urinary obstruction. Medical management of BPH includes anti-androgens and alpha-adrenergic blockers. This study compared the efficacy of a mixed therapy of finasteride, as a 5-alpha reductase inhibitor, in combination with prazosin, as a specific alpha 1-adrenergic receptor blocker (Group F+P), and finasteride alone (Group F) on obstructive/stimulative symptoms of BPH. Test groups were made up of 40 men, aged 60 ±6 (mean ±1sd) years, who were assigned into one of two equal groups. Prazosin, 1 mg, and finasteride, 5 mg daily, and the same dose of finasteride alone, were prescribed to Group F+P and Group F, respectively, for three months. At three months, the mean value for prostatic volume was reduced by 16.5% (p <0.05) for Group F+P, and 11.3% (p = ns) for Group F. Obstructive/stimulative symptom scores were reduced by 65.3% (p <0.0001) and 68.8% (p <0.0007) for Groups F+P and F, respectively. There was no correlation between the changes in mean prostatic volume and obstructive/stimulative symptom scores (r = –0.74). The most frequent complications were impotence (n = 17), loss of libido (n = 17), reduced ejaculate volume (n = 16), and dry mouth (n = 15). The amount of these incidences did not vary between the two groups.

It was concluded that the combination of finasteride and prazosin might accentuate the process of prostatic volume reduction in comparison with finasteride alone in BPH. The measure did not increase the incidence of complications; therefore, it may be a suitable alternative to more invasive therapeutic approaches.

Keywords: benign prostatic hypertrophy; finasteride; prazosin; side effects; symptoms; treatment; volume reduction
Prehosp Disast Med 2003:18:s(1)s9.
E-mail: yalaie@excite.com

Tuesday, 02 September
Biological and Chemical Warfare

Animal Surveillance as an Indicator of Biological Warfare

Major Tiffany S. Cottrell, BVMS, MSc, MRCVS, RAVC

Animal surveillance can be useful within medical intelligence to enhance prior knowledge, detect biological and chemical warfare (BW, CW) incidents, and collect diagnostic and forensic evidence.