

REVIEW ARTICLE

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Systematic Review of Etoricoxib in Osteoarthritis, Rheumatoid Arthritis and Ankylosing Spondylitis

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ABSTRACT

Background: Etoricoxib is a selective cyclooxygenase-2 (COX-2) inhibitor with higher selectivity to COX-2 than other coxibs and NSAIDs. Etoricoxib is indicated for the treatment of osteoarthritis, rheumatoid arthritis, ankylosing spondylitis, acute gouty arthritis as well as for pain relief for post-operative dental surgery. Compared to non-COX selective NSAIDs, etoricoxib is associated with significantly fewer upper gastrointestinal (GE) side effects. It is approved by European Medicine Agency (EMA) but has not been approved by Food and Drug Administration (FDA); the reason given was its cardiovascular side effects and thereby benefits did not outweigh the risks of the drug.

Objectives: To review the pharmacodynamics, pharmacokinetics, efficacy and safety of etoricoxib in the management of osteoarthritis, rheumatoid arthritis, ankylosing spondylitis, and evaluate its benefit to risk ratio.

Methods: A comprehensive literature search using the term 'etoricoxib' and 'pharmacodynamics'; 'etoricoxib' and 'pharmacokinetics'; 'etoricoxib' and 'osteoarthritis'; 'etoricoxib' and 'rheumatoid arthritis'; 'etoricoxib' and 'ankylosing spondylitis'; 'etoricoxib' and 'safety' was conducted in PubMed, Medline, Cochrane central register of controlled trials, Google scholar and Science direct to identify published studies on etoricoxib.

Results: Etoricoxib was found to be highly COX-2 selective and was well absorbed with good bioavailability. It is associated with a number of drug interactions as it is metabolized by CYP450 enzyme. It was inferred through the efficacy studies that etoricoxib is highly efficacious for the treatment of osteoarthritis, rheumatoid arthritis and ankylosing spondylitis due to its selective COX-2 inhibitory property. The safety of etoricoxib was also evaluated by considering its cardiovascular, gastrointestinal, renal side-effects and it was found to be comparatively safe for use.

Conclusion: Etoricoxib is a safe drug for the treatment of osteoarthritis, rheumatoid arthritis, and ankylosing spondylitis, and its benefit to risk ratio should be analyzed again and this should be compared to other coxibs and NSAIDs too.

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Quality and Affordable Medicines by Janaushadi: Cost-Analysis Revealing Utmost Economic Pricing

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ABSTRACT

Background: Background and Aim: In developing countries like India the cost of therapy for communicable and non-communicable are high. The therapeutic expenditures include the cost for travel, consultation, laboratory diagnosis, drugs, cost of adverse effects of drugs, and co-morbidities. The Janaushadi (JAS) retail outlets are initiated to meet the medical costs at all levels of the community. The present study was undertaken to analyze the costs with the different brands of the trade market and highlight the cost economy, and inform that it is a phenomenal step taken by our Government of India.

Methods: The Current Index of Medical Specialties, Jan-Apr 2018 issue and netmeds.com were taken as references for the list of drugs selected from National List of Essential Medicines (NLEM) 2015. The same pack sizes were used for the study.

Results: Totally 10 categories of drugs were analyzed, which includes Antibiotics and antibacterials, Anticancer drugs, Drugs acting on blood, Antidiabetics, Cardiovascular drugs, Analgesics, Antiepileptics, Antiallergics, gastrointestinal drugs, and Anti-gout drugs. The cost analysis revealed utmost economical pricing of the JAS. Though the list of drugs in JAS has lacunae in similarity of packing with some of the brands available in the trade market, the portfolio list covers the entire medical cost. Very few drugs have been slightly higher priced in JAS when compared with the lowest branded medicines available in the market.

Conclusion: An impressive move from the policy makers of our country has to be appreciated, at the same time the complexity in reaching the physicians, pharmacists, and other healthcare community and most importantly the general public has to be explored, to accomplish the mission and vision of this initiative.

Key words: Drug cost, Medication Cost, Cost analysis, Janaushadi, Cost of Therapy, Drug price

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Impact of Pharmaceutical Care in the Management of Hypertension in Women

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ABSTRACT

Hypertension is a chronic medical condition and one of the most common life threatening non-communicable diseases. About 20.9% of Indian women were suffering from hypertension, and estimated 22.9 and 23.6 by 2025. To assess the impact of pharmacist education on patient's systolic and diastolic blood pressure and on medication adherence. It is a Prospective, Observational study, conducted at the tertiary care hospital located at Chennai. Medication adherence was assessed using morisky scale. The data were analyzed by using IBM SPSS. Our study observed that the age group between 60–69 years, were more prone to hypertension. Study shows that before intervention their base line value of systolic blood pressure was found to be higher 153.5 ± 26.5 mm Hg. And then after intervention it was reduced to 127 ± 18.84 mm Hg. Meanwhile the baseline value of diastolic blood pressure before intervention was found to be 84.34 ± 15 mm Hg. After intervention the value was reduced to 77.86 ± 9.58 mm Hg. Before pharmacist intervention 82 patients were found to be low adherent to the anti-hypertensive medications then after intervention it was reduced to 23 patients. Study shows that beta blocking agents are the most often prescribed antihypertensive therapy in women. Our results concluded that pharmaceutical care were achieved significant reduction in the blood pressure by improving medication adherence through pharmacist education.

Keywords: Hypertension, Blood pressure, Medication adherence, Pharmaceutical care.

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Formulation and Evaluation of Matrix Transdermal Patch Containing Alendronate Sodium for Improving Patient Compliance

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ABSTRACT

The objective of the present work was to design a matrix type transdermal patch containing alendronate sodium for improving the bioavailability and subsequently avoid the adverse drug reaction. The in vitro drug release from a series of formulated patches was assessed by using Franz diffusion cells using goat skin. The in vitro release studies have shown that the transdermal patch prepared with chitosan polymer in adjunct with glycerol as plasticizer and DMSO as permeation enhancer (batch-C6) showed a cumulative drug release of 95.5 % in 24 hrs. The study suggested the use of natural polymer for enhancing drug release for long duration.

Keywords: Transdermal patch, Alendronate sodium, Plasticizer, Permeation enhancer.

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Development of Simple UV Spectrophotometric Method for the Determination of Cinitapride by Schiff's Base Method

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ABSTRACT

Sensitive, accurate and economical spectrophotometric method was developed for the determination of cinitapride in pure and in two pharmaceutical formulations is based on Schiff's base formation using vanillin. The drug obeyed Beer's law between 10–50 μ g mL⁻¹ at absorption maxima 400nm. The results of interference studies indicate that the excipients have no effect in the absorption of drug. The proposed method has been successfully applied for the spectrophotometric determination of Cinitapride in commercial tablet.

Keywords: Cinitapride, Schiff's base, Vanillin, Spectrophotometry.

CASE REPORT

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Vasculitis Associated with Rheumatoid Arthritis

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ABSTRACT

Rheumatoid vasculitis (RV) is a serious extra-articular complication of rheumatoid arthritis and involves an inflammatory condition of small and medium sized vessels. Extra-articular complications contribute to significant disease related morbidity and mortality. We present a case report of 45 year old female patient, followed up with diagnosis of rheumatoid arthritis for 9 years, was admitted with necrotising ulcer of proximal and distal phalanges of left index finger with pain, swelling and discolouration of finger tips of both the hands, pain and morning stiffness at bilateral wrist, metacarpophalangeal and proximal interphalangeal joints. Laboratory tests revealed elevated level of rheumatoid factor and ESR. The patient was on Methyl prednisolone since nine years and hence developed a drug induced hyperglycemia. The disease severity in this patient was measured using Disease Activity Score 28 scale (DAS28) which was found to be high (score 6.9). The affected necrotised finger parts were amputated and treatment provided with antibiotics, analgesics, Methotrexate, Hydroxychloroquine, methyl prednisolone and Pentoxifylline.

Keywords: Rheumatoid vasculitis, Naranjo's scale, DAS28, Methotrexate, Pentoxifylline, Rituximab, Cyclophosphamide