

D-1

Therapeutic Agents Used in Treatment of Migraine

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Abstract: Migraine is a disease with recurrent headache attacks usually accompanied by nausea, vomiting, photo-and/or photophobia. In adults, an attack may last for 4-72 hours. Two main types of migraine are distinguished, migraine with aura and without aura. In migraine with aura the headache is preceded by reversible neurological symptoms. Investigations of regional cerebral blood flow demonstrate a slowly spreading hypoperfusion during the aura. It is possible that this spreading hypoperfusion is caused by a neurophysiological phenomenon akin to cortical spreading depression of Lea. In migraine without aura the regional cerebral blood flow remains normal. The pathophysiological mechanisms of the migraine pain remain elusive but the pain is most likely due to some activation of the trigeminovascular system.

A-1

Self Medication - Boon and Bane

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Abstract-

This poster present a review on self medication, which can be defined as the use of medicine without any professional supervision. It aim to find whether self medication is boon or bane. Percentage of self medication might change with locality and region. There are many reason of self medication such as lack of time, high consulting fee, quick relief although medication are considered riskfree and usefull for treatment of commen health problems, their excessive use can also lead to serious side effect and unfavourable reactions.

Keywords- self medication, professional supervision, lack of time, high consulting fee, serious side effect.

A-2

GENERIC V/S BRANDED DRUG

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Abstract: The main objective of the present study was to conduct a comparative study of various branded dosage form and generic dosages form to determine whether all the formulation were equivalent. There are different brands of

market product of livofloxztionhamihydrate (250mg) (A,B,C,D& E)and one generic formulation (F). The all tablets pass with a hardness, thickness, lenth, diameter,depth,weight,variation test.

Keywords-

Branded dosage form, generic dosage form, history of generic drug.

C-1

Medicinal Plants potential in Wound Healing

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Wound is defined simply as the disruption of the cellular and anatomic continuity of a tissue Wound may be produced by physical, chemical, thermal, microbial or immunological insult to the tissue. The process of wound healing consists of integrated cellular and biochemical events leading to reestablishment of structural and functional integrity with regain of strength of injured tissue.

The aim of treating a wound is to either shorten the time required for healing or to minimize the undesired consequences. Attention should be directed towards discovering an agent, which will accelerate wound healing either when it is progressing normally, or when it is suppressed by various agents like corticosteroids, anti-neoplastics, or non- steroidal anti-inflammatory agents. Wound healing promoters like *aloe vera*extract, honey, comfrey, *chamomilia*extract are necessary for the initiation and promotion of wound healing.

Various herbals have been used in management and treatment of wounds over the years. A few plants like *Aloe vera*, *Azardirachta indica*, *Lantana camara*, *Tridaxprocumbens*, *Chromolaenaodorata*, *Helianthus annus*, *Jasminumauriculatum*, *Ginkgo biloba*, *Curcuma longa*, *Centellaasiatica*, *Cedrusdeodara*are scientifically proved has to shown promisingwound healing activity and are discussed in this paper.Plants and their extracts for wound healing are not only cheap and affordable but are also safe as hyper sensitive reactions are rarely encountered with the use of these agents. These natural agents induce healing and regeneration of the lost tissue by multiple mechanisms.

Keywords : wound healing, medicinal plants, injured tissue

A-3

Formulation and Evaluation of Ezogabine Nanoemulsion: Intranasal to Brain Targeted drug delivery

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Abstract: Intranasal drug administration is receiving increased attention as a delivery method for by passing the blood–brain barrier and rapidly targeting therapeutics to the brain or CNS. The objective of the present study was to optimize ezogabine nanoemulsion, for nose-to-brain delivery. Ezogabine nanoemulsion (NE) formulation were successfully prepared by the spontaneous emulsification method (titration method) using Capmul MCM as the oil, Tween-80 as surfactant, and PEG-400 as Co-surfactant phase on the basis of solubility studies. The nanoemulsion formulation containing 7.57% oil, 68.19% Smix ratio (3:1 Tween-80: PEG-400 ratio), 24.24% (v/v) aqueous phase that displayed an optical transparency of $99.73 \pm 0.10\%$, globule size of 16.26 ± 3.06 nm, and polydispersity index of 0.036 ± 0.022 .

Keywords: Ezogabine, Nanoemulsion, Intranasal to brain.

A-4

Role of pharmacist in health care system

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Abstract: During the last few years the pharmacy profession has expand significantly In terms of professional service delivery and now has been recognized has an important in the multi disciplinary provision of health care. The paper highlights the current scenario of the pharmacy profession in health care system. Pharmacist is a back-bone that strengthens to health care system. Different role of pharmacist in different sectors of pharmacy profession like industrial academics community health clinical research drug design and discovery developing NDDS etc. In nutshell pharmacist play an internal role in the health care system. Physician gives medicine to the patient but life to medicine is given by pharmacist.

Key words: Pharmacist, Health Care System

A-5

Recent Trends in Brain Targeted Drug Delivery System

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Abstract: The delivery of drug to brain is becoming a challenging task as it has to overcome various obstacles present in the brain i.e. blood brain barrier and blood cerebrospinal fluid barrier. Blood brain barrier is the barrier that comes in the way of central nervous system drug delivery. Brain targeting opens new avenues for researchers to look forward for better advancement so that patients suffering from brain diseases can have a feeling of relief. The current challenge that has to be faced is to create strategies of drug targeting that will permit the drug molecule to pass through blood brain barrier in an effective manner and this review deals with these strategies to safely enhance brain targeted drug delivery. This article reviews the various approaches of

brain targeting in terms of various patents and commercial value. Substantial progress will only come about, however if continued vigorous research efforts to developed more therapeutic and less toxic drug molecules are paralleled by the aggressive pursuit of more than effective mechanisms for delivering those drug to brain targets.

Keywords:

Blood brain barrier, central nervous system drug delivery, intranasal delivery, invasive techniques, patent.

A-6

Formulation And Evaluation Of Ezogabine Ion-Mediated Mucoadhesive In-Situ Gel For Intranasal To Brain Targeting Drug Delivery System

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Abstract: Ezogabine is used in the treatment of Epilepsy. It get absorbed from small intestine, but Ezogabine get metabolized in peripheral tissues, and thus serves as a significant barrier to the absorption of intact Ezogabine; only 40% of an orally administered dose reaches the circulation. Ezogabine (EZG) aqueous solubility is very poor. Hence solubility enhancement is necessary for intranasal delivery of Ezogabine (EZG) as nasal delivery cannot permit administration of large volumes of liquids. In situ nasal gel of Ezogabine was prepared to increase its bioavailability as well as rapid onset of action. DeacetylatedGellan gum was used as the gelling agent to form the mucoadhesive gel in the nasal by ion mediated mechanism. To overcome the problem of mucociliary clearance we used here DeacetylatedGellan gum as the mucoadhesive polymer. Thus different formulations were prepared by using different combination of the polymers judiciously and evaluated them in respect of ion mediated mechanism, mucoadhesive force and permeation of Ezogabine. From the above study, we observed that the ion mediated polymer and mucoadhesive polymer used here had distinct effects.

Keywords: Ezogabine, DeacetylatedGellan gum, In situ nasal gel, Nose to Brain targeting.

A-7

Preservative free multi dose container for Nasal and Ophthalmic Drug

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Abstract: The first nasal spray pumps were developed some 50 years ago and replaced step by step droppers and pipettes. The internal route can be used for a wide range of application and administration. On the other side development of a nasal formulation and to identify the right device is complex

process. In this way focused on multi dose device for liquid because they clearly dominated the market. These device can be used for administration of controlled substances to reduce the risk of misuse. For chronic diseases like allergic rhinitis, multi-dose devices are very cost effective and convenient and provide the safety and precision regulatory bodies require. To date, most of the medications administered nasally contain a preservative to support long storage times and proper in-use stability.

For ophthalmic drugs, there was a similar development from simple droppers to more sophisticated devices. Squeeze bottles without metering function are still widely used for ophthalmic medications especially for chronic conditions. Artificial tears filled in multi-dose bottles are commonly used to relieve dry eye symptoms, these again being medical devices because the mode of action is purely physical.

Key words:

Allergic rhinitis, Nasal formulation, Sophisticated devices, Ophthalmic drugs

A-8

**Antihyperglycemic Effect of Gliclazide Implants In
Alloxan Induced Diabetic Rabbits**

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Abstract: Diabetes mellitus is a chronic metabolic disorder characterized by hyperglycemia caused by defective insulin secretion, resistance to insulin action or combination of both. Frequent administration of antidiabetic drug dosage form leads to some side effects and affect on patients compliance, so there is need to develop a sustained release dosage form to enhance patients compliance and reduced dosing frequency. So attempt has been made to prepare and evaluate subdermal biodegradable implants of Gliclazide.

KEY WORDS: Diabetes, Implants, Gliclazide, Alloxan Induced, Antihyperglycemic

A-9

**Formulation and Characterization of Palmitic Acid
Grafted Maize Starch Nanoparticles Of Domperidone**

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Abstract: Domperidone is a dopamine-receptor (D2) antagonist, widely used in the treatment of motion sickness. It is poorly water soluble and have low bioavailability after oral administration. The aim of present was to develop hydrophobically modified starch nanoparticles to increase the dissolution of Domperidone. The synthesis of palmitic acid grafted maize starch (PAGMS) using long chain fatty acid was performed by esterification. The formation of palmitic acid

grafted maize starch was confirmed by FTIR and NMR study. Particle size measurements, zeta potential, percentage drug entrapment efficiency were characterized to optimize formulations. The particle size of formulation shows smaller particle size and high drug entrapment efficiency. All formulations showed negative zeta potential which results in better stabilization of the nanoparticles. The Scanning electron microscopy (SEM) results revealed that domperidone was present in amorphous state in the polymer. There was a significant enhancement of in vitro release (95.75%) of domperidone from PAGMS nanoparticles as compared to pure Domperidone (20%) in 60 min. In conclusion, the prepared domperidone loaded palmitic acid grafted maize starch (PAGMS) nanoparticles showed remarkable increase in dissolution rate.

Key words: Domperidone , nanoparticles, NMR study.

B-1

Review of Molecular Docking

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Abstract: Docking is one of the most commonly used techniques in drug design. It is used for both identifying correct poses of a ligand in the binding site of a protein & for the estimation of the strength of protein–ligand interaction. Because millions of compounds must be screened, before a suitable target for biological testing can be identified, all calculations should be done in a reasonable time frame. Thus, all programs currently in use exploit empirically based algorithms, avoiding systematic search of the conformational space. Similarly, the scoring is done using simple equations, which makes it possible to speed up the entire process. Therefore, docking results have to be verified by subsequent *in vitro* studies. The purpose of our work was to evaluate seven popular docking programs (Surflex, LigandFit, Glide, GOLD, FlexX, eHiTS, and AutoDock) on the extensive dataset composed of 1300 protein–ligands complexes from PDBbind 2007 database, where experimentally measured binding affinity values were also available. We compared independently the ability of proper posing [according to Root mean square deviation (or Root mean square distance) of predicted conformations versus the corresponding native one] and scoring (by calculating the correlation between docking score and ligand binding strength). To our knowledge, it is the first large-scale docking evaluation that covers both aspects of docking programs, that is, predicting ligand conformation and calculating the strength of its binding. More than 1000 protein–ligand pairs cover a wide range of different protein families and inhibitor classes

Keyword-Computational Chemistry ,Density functional theory approaches.

C-2

Safety Of Herbal Medicine In Life
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Abstract: Herbal medicines make up a significant constituent of the tendency toward alternative medicine. Herbal medicine is becoming ever more popular in today's world as people seek out natural remedies. Herbal medicines have been used since the dawn of civilization to maintain health and to treat various diseases. Herbal medicine is Primary Health Care because of better cultural acceptability, better compatibility with a human body & lesser side effect. In Germany & France many Herbs & Herbal extract are used as Prescription drugs. Herbal treatment most popular form of traditional medicine & are highly valuable in the International market place. To compete with the growing pharmaceutical market, there is an importance to use and scientifically authenticate more medicinally useful herbal products. In the western world, as the people are becoming aware of the potency and side effect of synthetic drugs, there is an increasing interest in the natural product remedies with a basic approach towards the nature. Medicinal plants play a vital role for the development of new drugs. The bioactive extract should be standardized on the basis of active compound. The bioactive extract should undergo cost 70% modern medicines in India are derived from natural products. People use Herbal medicines to try to maintain or improve their health.

Keywords: Herbal medicines, Medicinal plants

A-10

**Formulation and evaluation of Self microemulsifying Drug
Delivery System of Carisoprodol**

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Abstract

The aim of this study was to develop self-Microemulsifying drug delivery system (SMEDDS) to enhance the oral bioavailability of the poorly water-soluble drug Carisoprodol. SMEDDS are the isotropic mixture of surfactant, co-surfactant and oil incorporated with the drug. The impact of the oil, surfactant and co-surfactant on the drug solubility and their ratios on forming efficient and stable SMEDDS were examined in detail. Water titration method was used to formulation of SMEDDS. Phase behavior of the selected components was investigated by construction of ternary phase diagrams. The SMEDDS were characterized by morphological observation, Viscosity determination of SMEDDS of Carisoprodol.

Keywords: Carisoprodol, Self microemulsifying Drug Delivery Systems, Phase behavior, Water titration method, Bioavailability.

A-11

**Formulation and Evaluation of Hydrogel Based
Nanocrystals of Quetiapine**

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Abstract: The aim of this study was to develop self-Microemulsifying drug delivery system (SMEDDS) to enhance the oral bioavailability of the poorly water-soluble drug Carisoprodol. SMEDDS are the isotropic mixture of surfactant, co-surfactant and oil incorporated with the drug. The impact of the oil, surfactant and co-surfactant on the drug solubility and their ratios on forming efficient and stable SMEDDS were examined in detail. Water titration method was used to formulation of SMEDDS. Phase behavior of the selected components was investigated by construction of ternary phase diagrams. The SMEDDS were characterized by morphological observation, Viscosity determination of SMEDDS of Carisoprodol.

Keywords: Carisoprodol, Self microemulsifying Drug Delivery Systems, Phase behavior, Water titration method, Bioavailability.

D-2

**The In Vivo and In Vitro Diabetic Wound Healing Effects
Of *Eclipta Alba* And *Calotropis Gigantea***

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Abstract: The herbs *Eclipta Alba* and *Calotropis Gigantea* have long been used in traditional Medicine and serve as the principal herbs in treating diabetic foot ulcer. Diabetic complications, such as foot ulcer, impose major public health burdens worldwide. A chemically induced diabetic foot ulcer rat model was used for studying the wound healing effect. This major increase in morbidity and mortality of diabetes is due to the development of both macro- and micro-vascular complications including failure of the wound healing process. Currently, the approved growth factor and cell therapies for diabetic foot ulcers are not routinely used during treatment. Improper wound healing control may result in diabetic foot ulcer or even amputation. Wound healing is a very orderly and highly controlled process characterized by four distinct but overlapping phases: hemostasis, inflammation, proliferation and remodeling.

Our study presents for the first time scientific evidence towards the efficacy of the two herbs in enhancing diabetic wound healing through the actions of tissue regeneration, angiogenesis and anti-inflammation.

Key words: Eclipta Alba, Calotropis Gigantea, diabetes, wound healing.

A-12

Review on Floating Drug Delivery System (FDDS)

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Abstract: The following review focuses on the basis of oral controlled release delivery system. This system is programmed on to deliver the drug in predictable time that will increase the bioavailability of drug. Dose frequency can be reduced with help of floating mechanism. The formation of novel delivery system which retains drug in the stomach for prolonged time several approaches are currently utilized in the prolongation of the GRT (gastric residence time). The system including like floating drug delivery system, swelling and expanding system, high density system, modified as a shape of system. Floating dosage form can be prepared as a tablet, capsule and adding by suitable ingredient as well as gas generating agent. The presented review is briefly about the floating drug delivery system.

Keywords: Floating drug delivery system, Gastric residence time, Mechanism of floating drug delivery system

A-13

Review on Buccal Drug Delivery System

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Abstract: The following review focuses on the basis, easy administration of drug which can be administered to unconscious patient, which offers an excellent route, for the systemic delivery of drug with high first pass metabolism, thereby offering a greater bioavailability, also salivary production and composition may contribute to chemical modification of certain drugs a significant reduction in dose can be achieved there by reducing dose related side effect. Drugs which are unstable in acidic environment are destroyed by enzymatic or alkaline environment of intestine can be administered by this route. The buccal mucosa is interior of the cheek and can be used for systemic as well as local delivery.

Keywords: Buccal drug delivery system, buccal mucosa

B-2

Sorption of Cr⁺⁶ in Chitosan Bulk And Film Form

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Abstract: Chitin is the second most abundant polysaccharide after cellulose on the earth. It is composed of β (1 \rightarrow 4) linked 2-acetoamido-2-deoxy- β - (N-acetylglucosamine). It is a white hard elastic nitrogenous polysaccharide found in the exoskeleton as well as internal structure of crustaceans like prawns, lobsters etc. Crosslinked Chitosan as compared to natural chitosan is an excellent adsorbing material for Cr⁺⁶ removal from aqueous solutions. The adsorption efficiency is maximum at pH=2 of equilibrating solution. 0.5 g of cross linked chitosan can adsorb about 50 mL of 50 ppm Cr⁺⁶. The extraction efficiency is maximum after 96 hrs of equilibration process. The extraction of Cr⁺⁶ is unaffected by the presence of copper and carbonate in the equilibrating solutions.

Keywords: chitosan, DNA, Kidney.

A-14

Formulation and evaluation of hydrogel based nanocrystals of Quetiapine

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Abstract: The aim of this study was to prepare and characterize hydrogel based nanocrystals of Quetiapine to enhance the dissolution rate and oral bioavailability. Hydrogel based nanocrystal was prepared by the crosslink method using poloxamer 407 and sodium tripolyphosphate as a polymer. Prepared Hydrogel based nanocrystal was subjected to various evaluation parameters like drug content, solubility studies, pH, density, particle size analysis, viscosity, zeta potential, SEM, *In vitro* drug release studies. The FT-IR spectral analysis revealed that there was no interaction between the drug and excipients. Based on the results obtained for nanosuspension formulation, QTP24 formulation was successfully studied for hydrogel. The *in vitro* dissolution rate of Quetiapine was significantly increased by reducing the particle size.

Key words: Hydrogel based nanocrystal, Quetiapine, Bioavailability, Zeta potential, Spectral analysis.

A-15

A NOVEL HERBAL SKIN CARE DETERGENT SOAP

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Abstract: Plants have medicinal, pharmaceutical and cosmetic potential, using it many innovative products can be prepared useful for humans. Nowadays the synthetic soaps capture the market drastically, the source of these soaps are synthetic so they are causing much more adverse effects including skin irritation, endocrine disturbance, risk for children, allergic, vitiligo, non biodegradable, increase the water pollution. The *Balanites aegyptiaca* also known as 'Desert date' in English, "Hinganbet" in Marathi. Traditionally the plant was used for the anthelmintic,

antibacterial, anticancer, anti-inflammatory, woundhealing, antidiabetic and hepatoprotective activity. In present study the herbal detergent soap of ripe fruits of *Balanitesaegyptiaca* was formulated. Our study presents for the first time scientific evidence towards the efficacy of the *Balanitesaegyptiaca* in formulation of skin care detergent soap.

Keywords: *Balanitesaegyptiaca*, skin care, Soap.

C-3

Phyto-Filtration Assembly: Different Approach of Waste Water Treatment

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Abstract: Phytoremediation describes the use of plants to improve degraded environments. Developing nations that lack financial support and incentives to implement remedial procedures could benefit from cost-effective plant-based systems to remove toxic material from soil and water. Phytofiltration may be a cost-effective approach for treating contaminated wastewater. Now there is need of new treatment and reuse techniques which can be easily installed, need least space as well as cheap. Adding to further is the presence of fluoride in waste also increased the problems related to water thus we need a treatment which just not only purifies the waste water but also remove fluoride by keeping environment safe. This project deals water treatment without use of chemicals and encouraging people to plant tree simultaneously make an eco-friendly green environment. One of the oldest techniques used was sand filtration technique which were natural filters used for huge wastewater purification. Simultaneously another method of removal of toxic substances from soil and water was developed which is known as phyto-remediation. Phytoremediation technique has a large gap of application and research is only in its infancy. The purpose of the work is to bring these techniques together and make a design which can be used in small scale like house hold as well as for a whole colony to preserve, treat and reuse wastewater.

C-4

Development and Evaluation of herbal Lollypop for Oral Hygiene

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Abstract: Herbal remedies as a source of medicine has been a primordial practice and important constituent of health care system in India. The natural phytochemicals have a long history of use for gum and tooth problems which consist of Anti-bacterial, Astringent, Immune strengthens activities. The exploration of botanicals used in traditional medicine, may lead to development of novel preventive or therapeutic

strategies for oral health. The incidence of multidrug resistance in bacterial population has increased the importance of herbal medicines. In this study we have evaluated antibacterial activity of ethanolic extract *Mangifera indica*, *Psidium guajava* against mixed dental flora. Agar well diffusion method was used to determine antibacterial activity of the extracts against mixed dental flora. This polyherbal extracts inhibit growth of dental flora and can be used for dental health or oral hygiene. Lollypop famous preparation among kids were prepared from above extracts and it shows good antibacterial activity against mixed dental flora. Hence the natural phytochemicals could offer an effective alternative to antibiotics and represent a promising approach in prevention and therapeutic strategies for dental caries and other dental infections.

D-3

Eat with It and Then Eat It for Oral Hygiene Kandekar R.S., Bankar C.S., Prof Wagh J.G.

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Abstract: Now-a-days certain things have become part of our daily routine life which play very important role in our busy schedules from morning till night. With increased use of various carcinogenic, toxic and harmful chemicals present in everything which we eat, drink or use and with increased cases of cancer, dermatological, cardiovascular and other diseases, it is very important to keep ourselves fit and avoid the use or contact of such harmful contaminants in what we eat, drink or use. With same the another important problem is Dental infections such as dental caries is an infectious disease in which the oral bacterium *Streptococcus mutans* has been implicated as a principal etiological agent, although other oral bacterial species probably contribute to this disease. These bacteria are known to cause bad breath odor. Among the various oral micro-organisms, *S. mutans* has been identified as a plaque-forming bacterium capable of producing dental caries in experimental animals and in humans. This invention relates to method of making eco-friendly and biodegradable edible utensils containing the counteracting dental infections having potent extracts of *Mangifera indica*, *Psidium guajava*. More particularly, the invention relates to novel method of making eco-friendly and biodegradable cutleries which also helpful in oral Hygiene.

C-5

A Review on the Taxonomy, Pharmacognosy, Photochemistry, Pharmacology Of *Caesalpinia Crista* Dahatonde P, Auty R, Zaware B. Salbande V.

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Abstract: Medicinal plants are an excellent source of medicine from ancient times. Ayurveda, Siddha and other Indian literature stated the use of plants in treatment and management of different human diseases. *Caesalpinia Crista* Linn. (*C. Crista*) of family Fabaceae is a prickly shrub,

growing wild all over the deciduous forest of India. It is very popular indigenous system of medicine like Ayurveda, Unani and Homeopathy. In traditional system of medicine various plant parts such as leaves, stem, bark, root, and seed are used in anthelmintic, diarrhea, diabetes, tonic, colic, convulsions, leprosy, and palsy. It is reported to contain various Alkaloids, Terpenoids, Glycosides and Saponins. The present review is therefore; try to give a detailed survey of the literature on its Pharmacognosy, phytochemistry, medicinal properties, traditional uses and pharmacological activities.

Keywords: *C. Crista*, Pharmacognosy, Phytochemistry, Traditional medicine, Pharmacology.

A-16

Formulation and Evaluation of Carbamazepine Loaded Nanoparticles for Nose to Brain Delivery

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Abstract: The purpose of the present study is to develop Carbamazepine nanoparticles for nose to brain delivery. Carbamazepine is a sodium channel blocker, commonly used in the treatment of epileptic seizures. It is poorly water soluble and low bioavailability (up to 50%) after oral administration. HPMC and sodium alginate loaded Carbamazepine nanoparticles prepared by solvent evaporation method. Drug excipient interaction study was done by FTIR and DSC. Particle size measurements, percentage drug entrapment efficiency and *In vitro* drug release through nasal mucosa were characterized to optimize formulations. Results revealed that, the particle size of optimized formulation showed 249 nm and high drug entrapment efficiency (85.76%). All formulations showed negative zeta potential which results in better stabilization of the nanoparticles. In drug excipient study no interaction was found. In conclusion, the Carbamazepine loaded nanoparticles which enhanced nasal absorption and patient compliance for the treatment of epileptic seizure.

Key words: Carbamazepine, Nanoparticles.

A-17

Formulation and Evaluation of Fluoxetine Hydrochloride nanoparticles for Nose to Brain Delivery PathanInayat Bashir*, Lagad Sarang S, Bhaktraj Prabhakar J.

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Abstract: The purpose of the present study is to develop Fluoxetine HCl nanoparticles for nose to brain delivery. Fluoxetine HCl is selective serotonin reuptake inhibitors, commonly used in the treatment of depression. HPMC and sodium alginate loaded Fluoxetine HCl nanoparticles is prepared by solvent evaporation method. Drug excipient interaction study was done by FTIR and DSC. Particle size

measurements, percentage drug entrapment efficiency and *In vitro* drug release using nasal mucosa were characterized to optimize formulations. Results revealed that, particle size of optimized formulation showed 288.9 nm and high drug entrapment efficiency (92.70%). In drug excipient study no interaction was found. In conclusion, the Fluoxetine HCl loaded nanoparticles which increased nasal absorption and patient compliance for the treatment of depression.

Key words: Fluoxetine HCl, Nanoparticles.

C-6

HERBAL FORMULATION FOR CONTROL OF ANIMAL ECTOPARASITE.

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Abstract: Tick and mite major parasites in domestic animal affect the health and cause many disease to animal. To control hazards due to tick we have made a product which is harmless Ecofriendly cost effective .And easy to handle. Present work to developed ecofriendly low cost herbal formulation for effective control to ticks and mites which affects cattle and other domestic animal. Powder formulation contain various chemical compound which show action as well as they can cause death of ticks an mites by action on their body .via contact poison or stomach poison.

A-18

Opportunities and Challenges of Indian Pharmaceutical Sector: An Overview

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Abstract: The global pharmaceutical market size is estimated to reach USD 1.4 trillion and the Indian pharmaceutical market size is estimated as USD 55 billion by the year 2020. The Indian pharmaceutical sector is expected to grow with faster compound annual growth rate (CAGR)

Compare to global growth rate during the period 2015-2020. The world market will be dominating by countries like USA, EU and Japan and the contribution of pharming countries is expected to be more in coming years. The future of the world pharmaceutical sector will be dominated by medicines for non-communicable diseases and original branded medicines. The Indian pharmaceutical sector evolved in different phases from pre independent era to post Trade –Related Aspects of Intellectual Property Right (TRIPS). Presently, Indian pharmaceutical sector is dominated by the generics drug and more drugs are sold in anti-infective category. The Indian pharmaceutical industry is having opportunities in the domestic market with growing demand for quality health care. More opportunities are seen in the area of Contract Research and Manufacturing Services (CRAMS) by Mergers and

Acquisitions (M&A) and Biogenic market. The government of India has taken measure to boost pharmaceutical sector, even though the pharmaceutical sector is facing challenges in patent right and method used for fixing ceiling price for drugs. More challenges are expected due to immature clinical trial regulation and ethical aspects.

Key Words: Indian pharmaceutical sector, drug price patent right, generic drug

C-7

Who Guidelines for Herbal Drugs

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Abstract: Herbal drugs are being used as medicines from ancient period. The increased use of herbal drugs, and concerns over their safety and efficacy have certainly augmented the need of standardization of these herbal drugs. WHO has set up guidelines for standardization of these drugs, which are used as a standard by the majority of countries. The standardization includes the external (macroscopy/microscopy) as well as internal examination/ash values, extractive values and many other parameters to identify, authenticate and study its chemical composition. Standardization of the medicinal plants will ensure indirectly that the plants are conserved for their medicinal and nutritive value. Standardization confirms the safety of the medicinal plant but efficacy has to be judged clinically or in the laboratory. There is a thin line between efficacy and the presence of chemical compounds in the drug. The major hurdle in standardization of the batch to batch variation in the plant compounds. Addition of finer analytical methods of the chemical compounds may help to minimize the variation and give a better resolution of the plant drug. Importance of toxicological examination has increased manifolds as contamination can occur at various stages, from collection, storage, analysis or processing to extraction of active principles. These parameters should be recorded for years together; their database should be generated, recorded and analyzed statistically to see the difference in quality and quantity of the chemical compounds.

Keywords: Standardization, herbal drug, botanical, pharmacological, toxicological, parameters

D-4

Microbots Colman in Medical Science

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Abstract:

The human body houses a complex of twisted pathways, labyrinths of tunnels unimaginably small. The biological systems responsible for the flow of the blood, oxygen, and electrical impulses that sustain us are intricate and delicately

coordinated. And so, when these systems go wrong, when our bodies are vulnerable to cancers and diseases, it seems at first it would be ideal to have medicine that can perform on a scale as small and complex as the circuitry on which it acts. Rather than exposing the whole body to toxic chemotherapy drugs, imagine cancer treatments that could deliver drugs directly to malignant cells. Consider swallowing a device that could travel through your body, looking for signs of irritation and illness. Such a world seems surreal and evokes images of science fiction stories and children's books. However, the possibility of having tiny robots navigate the smallest passages of the human body is not far from being a reality. In fact, important steps have already been taken towards the creation and use of such nanotechnologies. When perfected, these microbots will enable doctors to explore and mend patients' ailments with greater insight and precision.

Keywords: Microbots, Cancer, Pillcam, Nano Robotics.

D-5

Therapeutic role of dual inhibitors of 5-LOX and COX, selective and non-selective non-steroidal

Anti-inflammatory drugs

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Abstract: Inflammation is a complex process occurring through a variety of mechanisms, leading to changes in local blood flow and the release of several mediators. These mediators account for local effects at the site of inflammation—that is, vasodilatation, increased vascular permeability, and migration of leucocytes into the affected area, and for general phenomena in the vascular systems of the body, including the cardiovascular system and the renal apparatus.

Dual 5-LOX/COX inhibitors are potential new drugs to treat inflammation. They act by blocking the formation of both prostaglandins and leucotrienes but do not affect lipoxin formation. Such combined inhibition avoids some of the disadvantages of selective COX-2 inhibitors and spares the gastrointestinal mucosa.

D-6

Methods for evaluation of *In vitro* antimicrobial activity

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Abstract: In recent years, there has been a growing interest in researching and developing new antimicrobial agents from various sources to combat microbial resistance. Therefore, a greater attention has been paid to antimicrobial activity screening and evaluating methods. Several bioassays such as disk-diffusion, well diffusion and broth or agar dilution are well known and commonly used, but others such as flow cytofluorometric and bioluminescent methods are not widely used because they require specified equipment and further evaluation for reproducibility and standardization, even if they can provide rapid results of the antimicrobial agent's effects and a better understanding of their impact on the viability and cell damage inflicted to the tested microorganism. In this review article, an exhaustive list of *in vitro* antimicrobial

susceptibility testing methods and detailed information on their advantages and limitations are reported

D-7

**The concept of: brand name drugs VS non-proprietary
(generic) name drugs**

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Abstract: Generic medicines are those where patent protection has expired, and which may be produced by manufacturers other than the innovator company. Use of generic medicines has been increasing in recent years, primarily as a cost saving measure in healthcare provision. Generic medicines are typically 20 to 90% cheaper than originator equivalents. Our objective is to provide a high-level description of what generic medicines are and how they differ, at a regulatory and legislative level, from originator medicines. We describe the current and historical regulation of medicines in the world's two main pharmaceutical markets, in addition to the similarities, as well as the differences, between generics and their originator equivalents including the reasons for the cost differences seen between originator and generic medicines. This review refers to the comparison of Branded drugs and generic drugs .

D-8

Diuretic activity of fruits of *Benincasacerifera* in normal rats

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Abstract: In the traditional medicine, all parts of benincasacerifera (cucurbitaceae) are used medicinally. The rind of the fruit is diuretic. It is taken internally in the treatment of urinary dysfunction, summer fevers. The seed is anthelmintic, anti-inflammatory, demulcent, diuretic, expectorant, febrifuge, laxative and tonic. In Ayurvedic medicine the seed is used in the treatment of coughs, fevers, excessive thirst and to expel tapeworms. Since, the diuretic activity of the extract has not been investigated in scientifically controlled studies, hence the aim of the present study was to evaluate the diuretic potential of aqueous and ethanolic extract the ripe fruits of benincasacerifera in normal rats. The aqueous and ethanolic extract of the ripe fruits of benincasacerifera (250mg/kg) exhibited significant diuretic activity when compared with reference standard, furosemide (20 mg/kg) in male wistar rats. The urine output was quantitated after 5 hrs for the total volume, pH and levels of Na⁺, K⁺ and Cl⁻ excreted in urine.

Keywords: Benincasacerifera, Diuretic activity; Urine output;

D-11

**Antidiarrheal Potential of *Adenanthera pavonina*
Linn.Seed Aqueous Extract in Rats
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Abstract:

Objective: To investigate antidiarrheal potential of *Adenanthera pavonina* seed aqueous extract (APSAE) in experimental animals.

Materials and Methods: The APSAE was administered orally to three groups of animals (six per group) in order to investigate activity against castor oil and magnesium sulphate-induced diarrhoea in rats. The effect of extract on gastrointestinal transit using charcoal and castor oil induced enteropooling was assessed. Loperamide 3mg/kg was used as reference standard.

Results: Oral administration of APSAE at doses 50,100 and 200 mg/kg exhibited dose-dependent significant (P<0.05) antidiarrheal potential against castor oil and magnesium sulphate-induced diarrhoea in rats. APSAE also produced significant (P<0.05) reduction in propulsive movement in castor oil-induced gastrointestinal transit using charcoal meal in rats when compared with reference standard Loperamide.

Conclusion: These findings demonstrate that *Adenanthera pavonina* seed aqueous extract shows significant potential, thus justifying its traditional use in diarrhoea.

Keywords: *Adenanthera pavonina*, Diarrhoea, Castor oil, MgSo₄, Loperamide.

D-9

Sweet's Syndrome: A Short Review

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Abstract: Sweet's syndrome (SS) is an acute febrile neutrophilic dermatosis first described by Robert Douglas Sweet in 1964. Whittle et al. and Crow et al. were the first to use the term "Sweet's syndrome" as titles of their articles Sweet's syndrome or acute febrile neutrophilic dermatosis is a rare disease characterized by painful violaceous erythematous skin lesions, fever and neutrophilic leukocytosis and dense dermal neutrophilic inflammatory infiltrate. It shows excellent response to corticosteroids. This review article briefly explains about Sweet's syndrome and its management.

Keywords: Epidemiology, neutrophils, sweet syndrome

A-19

Self-Micro Emulsifying Drug Delivery System- A Review

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Abstract: The aim of the present work is to emphasize about the importance and to make a capsule review on self micro

emulsifying drug delivery system. Oral route of drug administration has been the most prominent way of drug delivery system, because of its ability to prepare the formulation in an economical way, easy to administer, does not require any specific storage condition compared with parenteral route of administration. Some products also have the disadvantage of poor solubility of drugs which cause low dissolution rate resulting in low bioavailability. As classified under the BCS, the Class II drugs have low solubility. Many technologies are available to improve the solubility of the drugs such as micronization, dispersion, alteration of pH, conversion into salt forms, etc. Self micro emulsifying drug delivery system is new into these category which ensure improved bioavailability of the drugs and thereby decreases the dosing frequency, the amount to administer and also has the ability to target selective.

Keywords- Drug delivery, emulsification, improved bioavailability, SMEDDS, solvents, surfactants.

D-10

Relationship between Coffee Consumption and Cancer- A Review

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Abstract: This review was conducted to assess the role of coffee in cancer. Coffee is one of the most frequently consumed beverages around the world. More recently, coffee consumption has been associated with a reduction in the risk of several chronic diseases, including type 2 diabetes mellitus, Parkinson's disease and liver disease. Of these associations, the relationship between coffee drinking and cancer risk is of great interest. Compounds in coffee, complex mixture of more than a thousand chemicals, may have either beneficial or unfavourable effects on human body. This review was done to establish the proper relationship between coffee consumption and cancer and to find out whether it has harmful or beneficial effects and to create awareness among people.

KEYWORDS: association, cancer, coffee, consumption, risks.

A-20

Loaded RBC as Natural Micro Carrier for Drug Delivery

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Abstract: The development of suitable drug delivery systems offers a huge number of advantages in contrast to conventional administration of therapeutics: reduction of toxicity and adverse side effects by keeping the blood concentration within the therapeutic window, protection from premature inactivation and loss of its systemic activities. Red blood cells (RBC) represent a potential natural drug carrier system due to the ability of their membranes to be opened and resealed

D-12

Sugar Free Chocolate for Diabetes Mellitus from Natural Source

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Abstract: The plant locally known as Shindal Makad is widely used in rural area in some disease such as Diabetic mellitus, piles & used to decrease the elevated body temperature (used in fever). The main advantage of this plant is whole plant used in medicine. The whole plant extract was prepared with water by maceration process, added with ingredients or & prepared the sugar free chocolate which can be used for diabetic patients. The main aim behind this study is to provide the formulation to diabetic patients which when consumed in adequate amount confers some health benefits. The prepared chocolate reduces blood sugar level to moderate by *in vitro* methods.

Keywords: Chocolate, Diabetis Mellitus, Sugar

A-21

Needle Free Drug Delivery Recent Approach

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Abstract: Needle free injection system innovative ways to introduce a variety of medicines in patients without piercing the skin with traditional needle. These system work by the mechanism in which liquid medication is forced at an elevated speed through a small orifice that is held against the skin. Due to this an ultrafine stream of high pressure fluid is created that penetrates the skin devoid of the use of a needle thus faster administration of drug occurs as compared to conventional needle. Needle free injection system designated to solve these problems making them safer less expensive and more convenient today this is the most promising tool for delivering the medicament for suitable requirement.

Key words: Needle, skin.

D-13

Antidiabetic Activity of *Cuscutareflexa* areal part extract

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Abstract: It is fact that diabetes cannot be cured and it has never been reported that someone had recovered totally from diabetes. The traditional medicine performed a good clinical practice and is showing a bright future in the therapy of diabetes mellitus. In ethanolic extract of *Cuscutareflexa* alkaloids, sterols flavonoids and phenols were found present by phytochemical screening. The results reveals that the extract produced significant decrease in the blood glucose level when compared with the controls in alloxan induced

hyperglycaemic rats in the single dose experiment at the tested dose level and is comparable with the standard drug glibenclamide.

Keywords: Diabetes mellitus, alloxan, hyperglycaemic

C-8

Novel Herbal Formulation for Wound Healing Activity

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Abstract: The present study aims to evaluate the wound healing activity of herbal formulation of pet. ether extract of *Achyranthes aspera* in rats. Incision wounds for tensile strength and excision wounds for wound contraction were employed to investigate the wound healing potential. Topical application of the test formulation alone promoted the tensile strength (incision wounds) and wound contraction (excision wounds) showing healing potential comparable to Framycetin sulphate cream (1 % w/w). The application of herbal formulation shows good keratinization, epithelialization, fibrosis and collagenation indicates wound healing potentials of *A. aspera*. The present study thus offers a valuable insight into the claimed wound healing potential of the test formulation.

C-9

Drugs Obtained from Marine Sources

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Abstract: Disease ailments are changing the patterns, and the new diseases are emerging due to changing environments. The enormous growth of world population has overburdened the existing resources for the drugs. And hence, the drug manufacturers are always on the lookout for new resources to develop effective and safe drugs for the increasing demands of the world population. Seventy-five percentage of earth's surface is covered by water but research into the pharmacognosy of marine organisms is limited, and most of it still remains unexplored. Marine environment represents countless and diverse resource for new drugs to combat major diseases such as cancer or malaria. It also offers an ecological resource comprising a variety of aquatic plants and animals. These aquatic organisms are screened for antibacterial, immunomodulator, anti-fungal, anti-inflammatory, anticancer, antimicrobial, neuroprotective, analgesic, and antimalarial properties. They are used for new drug developments extensively across the world. Marine pharmacognosy offers the scope for research on these drugs of marine origin. Few industries in India offer such opportunities which can help us in the quest for new drugs. This is an extensive review of the drugs developed and the potential new drug candidates from

marine origin along with the opportunities for research on marine derived products..

A-22

**A Review of Marketing strategies Work by Different
Pharmaceutical Companies**

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Abstract: The current shift in the marketing strategy is work by multinational pharmaceutical Companies. It is now high-end (rather than adaptive) development that is being carried out by leading companies. And, increasingly, other companies are finding themselves competing against, or working with, new innovation-based companies. My study focuses on the processes and outcomes of globally distributed pharmaceutical companies. This article will present the changing marketing strategies when a pharma company shifts from acute base to chronic therapy base. This research paper will also give an insight about shift in supply chain process and customer and end-customer perception which is the base of formulation of different marketing strategies.

Key Words: Acute, Chronic, Core, Super Core, Closing stock.

C-10

**Formulation and Evaluation of Polyherbal Toothpaste for
Oral Care**

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Abstract: The demand for herbal based product such as toothpaste is high these days. Consumers believed by using herbal based toothpaste are safe, effective and less toxicity because less and only safe chemical used as compared to the synthetically produced toothpaste. Therefore, this study was aimed to formulate and evaluate new polyherbal toothpaste which containing herbal extracts that used to treat periodontal problem. The polyherbal toothpaste was formulated using polyherbal extracts namely Neem, Pudina, Clove, Tulsi, Myrrh, Elachi, Sunthi. The formulations were subjected to various evaluation tests like pH, spreadability, abrasiveness, foaming ability, cleaning ability, fineness, moisture and volatile content, tube inertness, test for F-, Pb, As and stability studies. The formulation showed very good anti microbial profile during microbial assay. The formulated toothpaste showed potent inhibition against gram positive bacteria but not against gram negative bacteria. Thereby, it opens a window for future study to enhance the ability of the toothpaste and to prove the efficacy and safety of the formulated toothpaste.

Keywords: Polyherbal toothpaste, antibacterial activity,

A-22

Formulation and Evaluation of Mouth Dissolving Tablet

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Abstract: The purpose of this research was to develop mouth dissolving tablet of Bendroflumethiazide. Mouth dissolving tablet offers a solution for pediatrics, geriatrics; psychiatric or mentally ill people and those have difficulty in swallowing tablets/capsules resulting in improved patient compliance. Mouth dissolving tablets constitute an innovative dosage forms that overcome the problems of swallowing and provides a quick onset of action. Bendroflumethiazide thiazide diuretic with actions and uses similar to those of hydrochlorothiazide. It has been used in the treatment of hypertension, edema, and urinary tract disorders. The aim is to formulate six formulations of mouth dissolving tablet of Bendroflumethiazide using different superdisintegrants (Sodium Starch Glycolate, Croscarmellose sodium) by direct compression method. The tablets were evaluated for hardness, thickness, friability, weight variation, uniformity of content, disintegration time and dissolution studies.

Keywords: Bendroflumethiazide, Croscarmellose sodium, sodium starch glycolate, mouth dissolving tablets.

A-23

Formulation and Evaluation of Nanocomposite Hydrogel Of Antihypertensive Drugs

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Abstract: Controlled and sustained drug delivery has become the standard in modern pharmaceutical design and an intensive research work is going on in obtaining better drug product effectiveness, reliability and safety. In this regard, many polymers are very useful with majority of hydrogels, which undergo reversible volume and/or sol-gel phase transitions in response to physiological or other external stimuli. The manufacturing of soft contact lenses. Poly (Acrylamide-co-acrylic acid) hydrogels, were synthesized by free radical crosslinking copolymerization in solution using N,N'-methylenebisacrylamide as the crosslinker. The swelling behaviour of the hydrogels thus obtained was analyzed in buffer solutions at various pH. The pH sensitive hydrogel were characterized by Fourier transform infrared analysis, differential scanning calorimetry and evaluated for swelling properties, SEM, and in vitro drug release. The use of hydrogels for drug release was investigated with Losartan potassium as the model drug. The release data shows that, as the concentration of acrylic acid was increased, swelling increased resulting in increased release of the drug.

Keywords: Hydrogel; Losartan potassium, Poly (Acrylamide-co-acrylic acid); N, N'-methylenebisacrylamide; pH sensitive.

B-3

Life Saving Dots

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Abstract: An iodine patch, designed like a regular bindi, is expected to help one lakh tribal women in north-west Maharashtra battle iodine deficiency. Since these tribals don't consume iodized salt, they are usually deficiency in this nutrient. Last month, these iodine bindis were distributed free to tribal women in villages near Nashik and Ahmednagar. "Each woman got 30 bindis to last a month. When stuck on the forehead, it delivers the daily required amount of iodine — 100-150 micro grams to the body by absorption through the skin," says DrPrachiPawar, president Neelvasant Medical Foundation and Research Centre, a Nashik NGO that organized the distribution after identifying population pockets deficient in iodine. Developed by Grey for Good, philanthropic arm of advertising and marketing agency Grey Group, the idea for the iodine bindi project — named looking for a solution to address iodine deficiency in India when doctors told them that it can be absorbed through the skin. So they decided to make an iodine patch but to give it a wider appeal it was designed as bindi. Almost every Indian woman wears a bindi. Transforming these into iodine patches ensured that women got the required dosage of iodine without making changes to their daily behaviour. Iodine deficiency causes a host of disorders like goitre, impaired mental development and thyroid issues, which, in turn, have been linked to breast cancer and fibroids. According to data from National Iodine Deficiency Disorders Control Programme, more than 71 million Indians suffer from iodine deficiency disorders. The bindi needs to be worn every day for up to eight hours to be effective. "It can be worn at night and even by pregnant women. While the NGO has yet to monitor the impact of the bindis on the iodine levels of the tribal women, Grey is now working on the second phase of this project wherein they plan to make these bindis available in the market.

Keywords: Iodine patch, Bindi, Iodine deficiency, tribal women.

A-24

Improve the Current Status of Pharmacy Practice in India through Implementation of Strategic Action Plan

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Abstract: It is strongly realized by one and all that even after more than 80 years, the overall image of pharmacist in general and community pharmacist in particular is very poor in India.

The community pharmacists are still struggling for their identity as healthcare professionals. The community pharmacists are branded as drug trader or drug seller by the public. There are many papers stating the urgent need for relocating pharmacist status in society, but unfortunately perhaps no one has come out with concrete solution in this regard. Therefore this paper looks at hard core facts for

achieving the common goal of raising the current status of community pharmacist in India, with special emphasis on radical reform in pharmacy curriculum and phase wise implementation of stringent registration/licensure process being followed in developed countries.

Keyword: Pharmacy practise, licensure process, Community pharmacy, strategic action plan.

A-25

E- Governance: Approach for Imparting Health Awareness, Health Education and Patient Counselling In Community Pharmacy

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Abstract: E governance approach is used to provide services online to the people at their door step. Many developed and developing countries have accepted the concept of e-Governance in various sectors to make working of government more efficient and transparent and health sector is not an exception. With the upcoming era of technology, the concept of e- health and m-health are becoming more wide spread. e-Health is creating electronic version of patient records across a national system while m-Health serves to provide remote information to healthcare providers using mobile and wireless devices to improve health outcomes, healthcare services and research. Information Communication Technology (ICT) plays a major role in m-health implementation and deployment. Role of community pharmacist in health care system is unprecedented. Right from health awareness to educating people regarding immunization, HIV, TB etc. role of community pharmacist is wholesome, but it lacks digital platform to showcase its potential in health system and to reach wide spread people. Digitalization is the need of the time and thus it is imperative to initiate e-community/ m-community pharmacy approach to promote healthcare of people in effective and efficient way by creating combo of ICT and expertise of community pharmacist. In nutshell the aim of this review is to create awareness and to ignite the thought process in the mind of budding pharmacist and thereby encourage them to take initiative in this direction. In this paper an attempt has been made to focus on present status of ICT/e-governance in health care and related aspects.

Keyword:e-Governance, Health Education, Community Pharmacist.

B-4

Embryonic Stem Cell in Cancer Treatment

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Abstract: Red blood Cancer is the most common cause of mortality and morbidity. Despite recent advances in the

treatments of cancer. For over 30 years, stem cells have been used in the replenishment of blood and immune systems damaged by the cancer cells or during treatment of cancer by chemotherapy or radiotherapy. Stem cells are parent cells which can develop into any of the three main types of blood cells: cells, white blood cells and platelets .stem cells have been reported to contribute in the tissue regeneration and as delivery vehicles in the cancer treatments. Stem cells can be divided into main three categories such as embryonic, germinal, and somatic. Aim of this review is primarily focus on the recent developments in the use of the stem cells in the cancer treatments, then to discuss the cancer stem cells, now considered as backbone in the development of the cancer; and their role in carcinogenesis and their implications in the development of possible new cancer treatment options in future.

Keywords: Cancer, stem cells, Immune System, Tissue Regeneration..

A-26

Pulsatile Drug Delivery System

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Abstract: Pulsatile drug delivery systems (PDDS) have attracted attraction because of their multiple benefits over conventional dosage forms. They deliver the drug at the right time, at the right site of action and in the right amount, which provides more benefit than conventional dosages and increased patient compliance. These systems are designed according to the circadian rhythm of the body, and the drug is released rapidly and completely as a pulse after a lag time. These products follow the sigmoid release profile characterized by a time period. These systems are beneficial for drugs with chronopharmacological behaviour, where nocturnal dosing is required, and for drugs that show the first-pass effect. This review covers methods and marketed technologies that have been developed to achieve pulsatile delivery. Sustained and controlled drug Delivery system Release the drug at a sustaintially study rate of Per unit of time however there are instances where maintaining a constant blood level of drug is not desirable in such case pulsatile drug delivery may be more advantageous disease. Where in PDDS are promising include Asthma, Peptic ulcer, cardiovascular disease arthritis attention deficit syndrome in children and hypercholesterolemia.

Keywords:

Capsular system, pulsatile drug delivery system, pulse, rupturable coating, lag time, circadian rhythm and time controlled drug release system.

B-5

**Harmful Effect of Plastic (BPA) on Health
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Abstract: There is no doubt about it: We live in a plastic world now days people regularly drinking purified water from cans and plastic bottles. A water bottle is usually made of plastic which contain polymer BPA. Bisphenol A (BPA) is a chemical produced in large quantities for use primarily in the production of polycarbonate plastics and epoxy resins sometimes used to make water bottles. Chronic exposure to BPA, as it is commonly known, has been associated with heart disease, cancer also interfere with the production, secretion, transport, action, function and elimination of natural hormones. so glass and stainless-steel is the safest material since it does not leech at all.

D-14

Evaluation of Efficacy of Montelukast in Rheumatoid Arthritis

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Abstract: Rheumatoid arthritis is an autoimmune disorder. It is chronic progressive disease resulting in inflammation and deformities of joints. Being an autoimmune disease, there's lacuna in proper management of disease. Current options like steroids and DMARD'S (disease modifying antirheumatic drugs) are the corner stone in therapy of disease, but have their own limitations. This study proves efficacy of montelukast in restricting progression of rheumatoid arthritis. Montelukast is an antagonist of leukotriene receptor. Arthritis was induced by according to model by intradermal injection of Complete Freund's adjuvant in right hind paw. Microscopy, inflammatory, biomarker, X-ray and radio diagnosis parameters were studied for both model. Hence result of this study clearly indicates that montelukast has promising antirheumatic activity.

Keywords: Montelukast, Rheumatoid arthritis, CFA (complete Freund's adjuvant)

D-15

Role of Pharmacist in First Aid Treatment

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Abstract: First aid may be defined as the immediate but temporary treatment given to victim of accident or sudden illness, promptly & correctly before medical help is available first aid does not mean complete care or cure of illness.

1. To preserve the life of victim
2. To minimize the effect of injury and provide medical health as early as possible to victim

D-16

Role of Pharmacist in Patient Counselling

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Abstract: Patient counselling is therefore an interaction between care provider and patient during which patient is provided with information about the health condition, medications etc. patient counselling as a component of

pharmaceutical care delivery can provide the launching pad for increased recognition of the role of pharmacist as care giver.

Key words: name of the medication, how to take the medication, warning about medication, storage of medication, purpose and out come of treatment.

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Review On: American Trypanosomiasis or Chagas Disease Dhonde S.N*; Narwate B.M.

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Abstract: Chagas disease caused by protozoan parasite *trypanosoma cruzi* is a major public Health burden in America and a potentially serious emerging threat to number of country throughout the world. American trypanosomiasis or chagas is endemic infectious disease form American continent. American trypanosomiasis is major cause of heart disease, megaesophagus and megacolon among people in Mexico, central and South America. The etiological agents, trypanosome cruzi are transmitted by bite of triatomine insect or kissing bugs. In the beginning of 70s Nifurtimox and benznidazole were introduced in clinical practice but result showed a great variability and here is still a controversy about their use for treatment. Moreover there is still no vaccine or highly effective treatment available for approximately 10 million people infected with *T. Cruzi*. Although public health programs have significantly reduce prevalence of chagas disease in America in recent decade.

Key ward : Chagas Disease, Trypanosoma cruzi, Protozoan Parasite etc.