Title: FAST DISSOLVING COMPOSITION WITH PROLONGED SWEET TASTE

Abstract: A novel fast dissolving pharmaceutical composition in solid dosage form with prolonged sweet taste which comprises (a) at least one pharmaceutically active agent, (b) at least one water soluble sugar, (c) at least one non-sugar sweetener in normal fast release form and (d) at least one non-sugar sweetener in a mucoadhesive slow release form.
FAST DISSOLVING COMPOSITION WITH PROLONGED SWEET TASTE

INTRODUCTION

The present invention relates to a novel composition of a Fast dissolving Pharmaceutical preparation in solid dosage form with prolonged sweet taste and a process for the manufacture thereof.

Background of the Invention:

Generally, solid pharmaceutical preparation such as tablets/capsules are designed so that after oral administration, they disintegrate or dissolve in the digestive organs and the active ingredients are absorbed. Such compositions are not meant to disintegrate or dissolve in the oral cavity.

However, in certain conditions there is a requirement of fast disintegrating or dissolving tablets which can be administered even without water. Such fast dissolving tablets disperse readily to form a suspension or solution of the drug after mixing with the saliva, which is easily swallowed by the patients. These are particularly suitable for children or aged patients who have difficulty in chewing and/or swallowing an intact tablet/capsule.

Fast mouth dissolving tablets are also suitable for those patients:-

a) Who are suffering from nausea or vomiting;

b) Who have an upper gastrointestinal tract disease e.g., injury in food pipe;

c) Who have undergone upper GI surgery;

d) Who are prostrate;

e) Who are elderly and have frequent urination problems at night.
f) Who are incapacitated elderly patients e.g. suffering from Parkinson's disease;

g) Who are children;

h) Who are in a situation where water is not available.

All the above conditions necessitate that solid dosage forms like tablets and capsules should be modified to accommodate above conditions. Formulating conventional tablets and liquid dosage forms does not solve all the problems stated above. Dispersible tablets still require water and lead to gritty suspensions. Such reconstituted dosage forms as well as ready-made suspensions still cannot be given in all above conditions and additionally they pose problems of uniformity of doses and stability of the drug.

In the past techniques have been reported for producing such fast dissolving tablets, but most of them require the use of highly specialized manufacturing processes or specialized packaging. The Zydis technology from R.P. Scherer, England or instance, utilizes freeze-drying of active ingredient with polymer, sugar and other ingredients to form a fast dissolving dosage form. (Manuf. Chemist. Feb., 1990). European Patent Application No. EP 0 839 526 A2 describes the use of a high cost excipient i.e. erythritol in combination with an active ingredient, crystalline Cellulose and disintegrants to prepare fast disintegrating buccal tablets. U.S. Patent No. 5,073,374 discloses a fast dissolving buccal tablet containing an active ingredient, a water soluble sugar such as sorbitol and a lubricant. U.S. Patent No. 5,085,876 discloses a surprisingly fast dissolving sweetening agent in combination with caramel.

US Patent No. 5,466,464 discloses a solid preparation soluble in buccal cavity containing agar in combination with sugars like lactose and/or mannitol and an active ingredient. The drawback in this preparation is that agar is a natural material susceptible to variability and microbial contamination. The composition described in U.S. Patent No. 5,720,974 requires a special “Compression-Molding” process to produce fast dissolving tablet. U.S. Patent No. 5,837,285 discloses fast soluble tablets which are produced by a novel process which involves the compression shaping of a wet kneaded mass of drug and sugar alcohol. The wet tablets produced are thereafter dried.
Another US Patent No.5,869,098 discloses fast dissolving compressed tablets manufactured by using partially hygroscopic shearform matrices. Such matrices are prepared from sugar carriers using a flash-heat process. Further U.S.Patent No.5,112616 discloses the use of solid selected from polyethylene glycols and glycerides, which glycerides melt in the range of 25°C to 45°C surfactants selected from the groups consisting of nonionic Poly (oxypropylene)Poly (oxethylene) copolymers, polyoxyethylene polysorbate derivatives and sodium lauryl sulfate to prepare fast dissolving buccal tablets.

PCT Application Number WO 93/23017 defines a fast dissolving matrix consisting of gelatin, pectin and/or soy fiber protein and one or more amino acids having from 2 to 12 carbon atoms.

All the compositions disclosed in the prior art suffer from the drawback of a bitter taste in the mouth after consumption and also do not provide for a prolonged sweet taste in oral cavity after consumption of such fast dissolving compositions.

It is the object of the present invention to provide a pharmaceutical preparation in solid dosage form, preferably in the form of a compressed tablet which when orally administered dissolves or disperses in the mouth within one minute requiring very little amount of body fluids like saliva to produce a smooth solution or suspension of the drug with a prolonged sweet taste.

Accordingly the present invention relates to a novel fast dissolving pharmaceutical composition in solid dosage form with prolonged sweet taste which comprises:

a) At least one pharmaceutically active agent from 0.1 to 99 weight %

b) At least one water soluble sugar, such as herein described, in an amount of from 5 to 95 weight % of the total dosage form.

c) At least one non-sugar sweetener, such as herein described, in their normal fast release form in an amount of from 0 to 10 weight % of the total dosage form.
d) At least one non-sugar sweetener, such as herein described, in a mucoadhesive slow release form obtained as herein described in an amount of from 0.5 to 20 weight % of the total dosage form.

The present invention also relates to a process for the preparation of a novel fast dissolving pharmaceutical composition in solid dosage form with prolonged sweet taste which comprises mixing the following ingredients:

a) At least one pharmaceutically active agent from 0.1 to 99 weight % of the total form.

b) At least one water soluble sugar, such as herein described, in an amount of form 5 to 95 weight % of the total dosage form.

c) At least one non-sugar sweetener, such as herein described, in their normal fast release form in an amount of from 0 to 10 weight % of the total dosage form.

d) At least one non-sugar sweetener, such as herein described, in a mucoadhesive slow release form obtained as herein described in an amount of from 0.5 to 20 weight % of the total dosage form.

and compressing the resulting mixture obtained into tablets or any other solid dosage form.

The water soluble sugars which can be used in the process according to the present invention are Mannitol, Sorbitol, Xylitol and the like.

The non-sugar sweetners which can be used in the process according to the present invention are Aspartame, Acesulfame potassium, Saccharin sodium, Cyclamates, Glycyrhrizin and the like.

The non-sugar sweetner in a mucoadhesive slow release form is obtained by mixing, coating, granulating, encapsulation, matrix formulation or complexation a non-sugar sweetner with a mucoadhesive agent as stated herein.

The drugs pharmaceutical agents or their salts to be employed for the fast dissolving buccal tablet in accordance with the present invention can be selected from the following group of drugs-
α-ADRENERGIC AGONIST such as Adrafinil, Adrenolone, Amidophrine, Apraclonidine, Budralazine, Clonidine, Cyclopentamine, Detomidine, Dimetofrine, Dipivefrin, Ephedrine, Epinephrine, Fenoxazoline, Guanbenz, Guanafacine, Hydroxyamphetamine, Ibopamine, Indanazoline, Isomethptene, Mephentermine, Metaraminol, Methoxamine, Methylhexaneamine, Metizolene, Midodrine, Naphazoline, Norepinephrine, Norfenefrine, Octodrine, Octopamine, Oxymetazoline, Phentylephrine, Phenylpropanolamine, Phenylpropymethamine, Pholedrine, Propylhexedrine, Pseudoephedrine, Rilmenedine, Syneprine, Tetrahydrozoline, Tiamenidine, Tramazoline, Tuaminoheptane, Tymazoline, Tyramine, Xylometazoline.

β-ADRENERGIC AGONIST such as Formoterol, Methoxyphenamine, Ritodrine, Terbuterol.

α-ARENERGIC BLOKER such as Dapiprazole, Doxazosin, Ergoloid, Mesylates, Fenspiride, Parazosin, Tarazosin, Tolazoline, Yohimbine.

α-ADRENERGIC BLOCKER such as Acebutolol, Amosulalol, Arotinolol, Atenolol, Befunolol, Betaxolol, Bevantolol, Bisoprolol, Bopindolol, Bucumolol, Bufetolol, Buforalol, Bunitrolol, Bupranolol, Butoflolol, Carazolol, Carteolol, Carvedilol, Celiprolol, Cetamolol, Cloranolol, Diievalol, Epanolol, Esmolol, Indenolol, Labetalol, Levobunolol, Mepindolol, Metipranolol, Metoprolol, Moprolol, Nadolol, Nadoxolol, Nifenalol, Nipradilol, Oxprenolol, Penbutolol, Pindolol, Practolol, Propranolol, Sotalol, Sulfinalol, Talinolol, Tertatolol, Timolol, Toliprolol, Xibenolol

ALCOHOL DETERRENT such as calcium cyanamide citrated, Disulfiram, Nitrefazole
ALDOSE REDUCTASE INHIBITOR such as Epalrestat, Ponalrestat, Sorbinil, Toirestat
ANABOLIC such as Androisoxazole, Androstenediol, Bolandiol, Bolasterone, Clostebol, Ethylestrenol, Formyldienolone, 4-Hydroxy-19-nortestosterone, Methandriol, Methenolone, Methiltriebolone, Nandrolone, Decanoate, Nandrogon-Hexyloxyphenylpropionate, Nandrogon Phenpropionate, Norbolethone, Oxymesterone, Quinbolone, Stenbolone, Trenbolone, ANALGESIC (DENTAL) such as Chlorobutanol, Clove, Eugenol, Potassium Nitrate, Potassium Oxalate
ALGESIC (NARCOTIC) such as Alfentanil, Allylprodine, Alphaprodine, Anileridine, Benzylmorphine, Bezitramide, Buprenorphine, Butorphanol, Clonitazene, Codeines, Desomorphine, Dextromoramide, Dezocine, Diampromide, Dihydrocodeine, Dihydrocodeineone Enol Acetate, Dihydromorphone, Dimenoxadole, Dimepheptanol, Dimethylthiambutene, Dioxaphetyl, Butyrate, Dipipanone, Eptazocine, Ethoheptazine, Ethylmethylthiambutene, Ethylmorphine, Etonitazene, Fentanyl, Hydrocodone, Hydromorphone, Hydroxypethidine, Isomethadone, Ketobemidone, Levorphanol, Lofentanil, Meperidine, Meptazinol, Metazocine, Methadone, Metopon, Morphine, Morphine Derivatives, Myrophine, nalbuphine, Narceine, Nicomorphine, Norlevorphanol, Norbromadone, Normorphine, Norpipanone, Opium, Oxycodone, Oxymorphone, Papaveretum, Pentazocine, Phenadoxone, Phenazocine, Pheoperidine, Piminodine, Piripramide, Proheptazine, Promedol, Properidine, Propiram, Propoxyphene, Sufentanil, Tilidine

Rimazolium, metilsulfate, Salacetamide, salcin, Salicyamide, O-Acetic Acid, Salicylic Acid, Salicylates and derivatives, Salicylsulfuric Acid, Salsalite, Salverine, Simetride, Sulfamipyrene, Suprofen, Talniflumate, Tenoxicam, Terofenamate, Tetradrine, Tinoridine, Tolfenamic Acid, Tolprone, Tramadol, Viminol, Xenbucin, Zomepirac

ANDROZEN such as Boldenone, Fluoxymesterone, Mestanolone, Mesterolone, Methandrostenolone, 17-Methyltestosterone, 17α-Methyl-testosterone 3-cyclopentyl Enol Ether, Norethandrolone, Normethandrone, Oxandrolone, Oxymetholone, Prasterone, Stanolone, Stanozolol, Testosterone, Testosterone 17-Chloral Hemiacetal, Testosterone 17-β-cypionate, Testosterone Enanthate, Testosterone Nicotinate, Testosterone Phenylpropionate, Testosterone Propionate, Tiomesterone,


ANOREXIC such as Aminorex, Amphecloral, Benzphetamine, Chlorphentermine, Clobenzorax, Chloforex, Cyclexedrine, Diphemethoxidine, Fenbutrazate, Fenfluramine, Fenproporex, Furfurylmethylamphetamine, Levophacetoperate, Mefenorex, Metamfeproammone, Norpseudoephedrine, Phenpetermine, Picilorex ANTHELMINTIC
(CESTODES) such as Arecoline, Aspidine, Aspidinol, Dichloropphen(e), Embelin, Kosin, Napthalene, Niclosamide, Pellertierine, Pellertierine Tannate, Quinacrine.

Anthelmintic (NEMATODES) such as Alantolactone, Amoscanate, Ascaridole, Bephenium, Bitoscanate, Carbon Tetrachloride, Carvacrol, Cyclobendazole, Diethylcarbamazine, Diphenane, Dithiazanine Iodide, Dymanthine, Gentian Violet, 4-Hexylresorcinol, Kainic Acid, Mebendazole, 2- Naphthol, Oxantel, Piperazines, Pyrantel, Pyrvinium Pamoate, α-Santonin, Stibazium Iodide, Tetrachloroethylene, Thiabendazole, Thymol, Thymyl Nsoamylcarbamate, Trichlofenol Piperazine, Urea Stibamine.

ANTHELMINTIC (ONCHOCERCA) such as Ivermectin

ANTHELMINTIC (SCHISTOSOMA) such as Amphotalide, Antimony(s) and Derivatives, Becanthone, Hycanthone, Lucanthone, Niridazole, Oxamniquine, Praziquantel, Stibocaptate, Stibophen.

ANTHELMINTIC (TREMATODES) such as Anthioline

ANTIACNE such as Algestone, Acetophenide, Azelaic Acid, Benzoyl Peroxide, Dichloroacetic acid, Motretinide, Retinoic Acid, Tetroquinone.

ANTIALLERGIC such as Amlexanox, Astimizole, Azelastine, Cromolyn, Fenpiprane, Histamines, Ketotifen, Nedocromil, Oxatomide, Pentigetide, Poison Ivy Extract, Poison Oak Extract, Poison Sumac Extract, Repirinast, Tiaramide, Tranilast, Traxanox, Urushiol, Cetirizine, Fexophenadine.

ANTIAMEBIC such as Arstholin, Bialamicol, Carbarsone, Cephaeline, Chlorbetamide, Chlorphenoxamid, Dehydroemetine, Dibromopropamidine, Diloxanide, Dephetarsone, Emetine, Fumagillin, Glaucarubin, Glycobiarsol, 8-Hydroxy-7-iodo-5-quinolinesulfonic Acid, Iodochlorhydroxyquin, Iodoquinol, Paromomycin, Phanquinone, Phearson Sulfoxylate, Polybosarsol, Propamidine, Quinfamide, Secnidazole, Sulfarside, Techlozan, Thiocarbamizine, Thiocarbasone, Tinidazole.

ANTIANDROGEN such as Bifluranol, Cyoctol, Cyproterone, Oxendolone
ANTIANGINAL such as Amlodipine, Amyl Nitrate, Cinpezet Maleate, Imolamine, Isosorbide Dinitrate, Limaprost, Molsidomine, Nitroxyalklamide Derivatives

ANTIARRHYTHMIC such as Acecaine, Adenosine, Ajmaline, Alprenolol, S-Aminoalkyl-s-Arylsulfonamides, Amprocan, Aprindine, Bretylium Tosylate, Bubumolol, Bunafine, Butidrine, Butobendine, Capobenic Acid, Cifenline, Disopyramide, Encainide, Flecaidine, Hydroquinidine, Indecainide, Ipratopium, Lorajmine, Lorcanide, Meobentine, Mexiletine, Moricizine, Pirmenol, Prazimaline, Procainamide, Pronethalol, Propafenone, Pyrinoline, Quinidine, Quinidine Sulfate, Quinidine, Tocainide, Viquidil.

ANTIARTERIOSCLEROTIC such as Pyridinol Carbamate

ANTIARTHRITIC/ANTIRHEUMATIC such as Allocupeide Sodium, Auranofin, Aurothioglucone, Aurothioglucanide, Azathioprine, D-tert-Butyl-phenols, Calcium 3-Aurothio-2-propanol-1-sulfonate, Clobuzarit, Cuproxoline, Dicacein, Glucosamine, Gold Sodium THiosulfate, Hydroxychloroquine, Kebuzone, Lobenzarit, Melittin, Myoral, Penicillamine

ANTIBACTERIAL (ANTIBIOTIC)
Aminoglycosides such as Amikacin, Apramycin, Arbekacin, Bambermccins, Butirosin, Dibenacin, Dihrostreptomycin, Fortimicin(s), Fradiomycin, Gentamicin, Ispamicin, kanamycin, Micronomicin, Neomycin, Neomycin Undecylenate, Netilmicin, Paromomycin, Ribostamycin, Sisomycin, Spectinomycin, Streptomycin, Streptomicozid, Tobramycin

Amphenicols such as Azidamfenicol, Chloramphenicol, Chloramphenicol Palmirate, Chloramphenicol Pantothenate, Florfenicol, Thiamphenicol,

Ansamycins such as Rifamide, Rifampin, Rifamycin, Rifaximin, Rifapentene

β-Lactams

Carbapenems such as Imipenem
Cephalosporins, such as 1-Carba(dethia)Cephalosporin, Cefactor, Cefadroxil, Cephalosporins, Cefatrizine, Cefazedone, Cefazolin, Cefexime, Cefmenoxime, Cefodizime, Cefonicid, Cefoperazone, Ceforanide, Cefotaxime, Cefotiam, Cefmizole, Cetpipirimide, Cepodoxime Proxetil, Cefroxadine, Cefsulodin, Ceftazidime, Cefteram, Ceftezole, Ceftibuten, Ceftizoxime, Ceftriaxone, Cefuroxime, Cefuzonam, Cephacetrile, Sodium, Cephalexin, Cephaloglycin, Cephaloridine, Cephalosporin, Cephalothin, Cephapirin, Sodium, Cephradine, Pivcefalexine Cephameycin such as Ceftbuperazone, Cefmetazole, Cefminox, Cefetan, Cefoxitin

Manobactams such as Aztreonam, carumonam, Tigemonam

Oxacephems such as Flomoxef, Moxolactam

Penicillins such as Amidocillin, Amdinocillin, Pivoxil, Amoxicillin, Ampicillin, Apalcillin, Aspoxicillin, Azidocillan, Azlocillin, Bacampicillin, Benzylpenicillinic Acid, Benzylpenicillin, Carbenicillin, Carefeciull, Carindacillin, Clometocillin, Cloxacillin, Cyclacillin, Dicloxacinill, Diphenicillin, Epicilllin, Fenbencillin, Floxicillin, Hetacillin, Lenampcillin, Metampcillin, Methiciill, Mezlocillin, Naclillin, Oxacillin, Penamcellicin, Penethamate Hydriode, Penicillin G Benethamine, Penicillin G Benzathine, Penicillin G Benzhydrylamine, Penicillin G Calcium, Penicillin G Hydrabamine, Penicillin G Potassium, Penicillin G Procaine, Penicillin N, Penicillin O, Penicillin V, Penicillin, V Benzathine, Penicillin V Hydrabamine, Penimepicycline, Phenethiciil, Piperacillin, Pivapicillin, Propicillin, Quinacillin, Sulbencilll, Talampcillin, Temocillin, Ticarcillin Lincosamides such as clindamycin, Lincomycin

Macrolides such as Azithromycin, Carbomycin, Clarithromycin, Erythromycin(s) and Derivatives, Josamycin, Leucomycins, Midecamycins, Miokamycin,

Oleandomycin, Primycin, Rosaramicin, Roxithromycin, Spiramycin, Troleandomycin,

Polypeptides such as Amphotocin, Bacitracin, Capreomycin, Colistin, Enduracidin, Enviomycin, Fusafungine, Gramicidin(s), Gramicidin S, Mikamycin, Polymyxin, Polymyxin B - Methanesulfonyl Acid, Pritinamycin, Ristocetin, Teicoplanin, Thiostrepton.
Tuberactinomycin, Tyrocidine, Tyrothricin, Vancomycin, Vibomycin(s), Virginiamycin, Zinc Bacitracin

Tetracyclines such as Aplycylcine, Chlortetracycline, Clomocycline, Demeclocycline, Guamecycline, Lymecycline, Meclocycline, Methacycline, Minocycline, Oxytetracyline, Penimepicycline, Pipacycline, Rolitetracycline, Sancycline, Senocicolin, Tetracycline

Others such as Cycloserine, Mupirocin, Tuberin

ANTIBACTERIAL (SYNTHETIC)

2,4-Diaminopyrimidies such as Brodimoprim, Tetroxoprim, Trimethoprim

Nitrofurans such as Furaladone, Furazolium, Nifuradene, Nifuratel, Nifurfoline, Nifurpirinol, Nifurprazine, Nifurtoinol, Nitrofurantoin Quinolones and Analogs such as Amifloxacin, Cinoxacin, Ciprofloxacine, Difloxacin, Enoxacin, Fleroxacin, Flumequine, Lomefloxacin, Miloxacin, Nalidixic Acid, Norfloxacine, Ofloxacin, Oxolinic Acid, Pefloxacin, Pipemidic Acid, Piromidic Acid, Rosoxacin, Temafloxacin

Sulfonamides such as Acetyl Sulfamethoxypyrazine, Acetyl Sulfoisoxazole, Azosulfamide, Benzylsulfamide, Chloramine-B, Chloramine-T, DichloramineT, Formosulfathiazole, N²-Formyl-Sulfisomidine, N⁴-β-D- Glucosylsulfanilamide, Mafenide, 4'-{(Methyl-sulfamoyl)} sulfanilamide, p-Nitosulfathiazole, Nopryl sulfamid, Phthalsulfacetamide, Phthalsulfathiazole, Salazosufadimidine, Succinylsulfathiazole, Sulfabenzamide, Sulfacetamide. Sulfachlorypdradine, Sulfachrysoidine, Sulfacytine, Sulfadiazine, Sulfadramide, Sulfadimethoxine, Sulfadoxine, Sulfaethidole, Sulfaguanidine, 1 Sulfaguanol, Sulfalene, Sulfalox Acid, Sulfamerazine, Sulfameter, Sulfamethazine, Sulfamethizole, Sulfamethomidine, Sulfamethoxazole, Sulfamethoxypyridazine, Sulfametrozole, Sulfoximidochrysoidine, Sulfamoxole, Sulfanilamide, Sulfanilamidomethanesulfonic Acid, Triethanolamine Salt, 4-Sulfanilamidosalycy Acid, N⁴-SulfanilylSulfanilamide, Sulfanilyurea, N-Sulfanilyl-3,4-xylamide, Sulfanitran, Sulfaperine, Sulfaphenazole, Sulfapyrimydine, Sulfapyrazine,
Sulfapiridine, Sulfasomizole, Sulfasymazine, Sulfathiazole, Sulfathiourea, Sulfatolamide, Sulfisomidine, Sulfisoxazole

Sulfones Such as Acedapsone, Acediasulfone, Acetosulfone, Dapsone, Diathimosulfone, Glocosulfone, Solasulfone, Succisulfone, Sulfanilic Acid, p-sulfanylbenezylamine, p,p-sulfonyldianiline, N,N’digalactoside, Sulfoxone, Thiazolesulfone

Others such as Clofoctol, Hexedine, Magainis, Methenamine Anhydromethylenecitrate, Methenamine Hippurate, Methenamine Mandelate, Methenamine Sulfosalicylate, Nitrooxoline, Squalamine, Xibornol

ANTICHOLINERGIC Such as Adiphenine, Alverine, Ambutonomium, Aminopentamide, Amixetrine, Amprotropine, Phosphate, Anisotropine, Methylbromide, Apoatropine, Atropine, Atropine N-Oxide, Benactyzine, Benapryzine, Benzetimide, Benzelsonium, Benztropine, Mesylate, Bevonium, Methyl Sulfate, Biperiden, Butropium

N-Butylscopolammonium Bromide, Buzepide, Camylofine, Caramiphen, Chlorbenzoxamine, Chlorphenoxamine, Cimetropium, Clidinium, Cyclodrine, Cyclonium, Cyclopentolate, Cyclicrine, Deptropine, Dextimide, Dibutoline Sulfate, Dicyclomine, Diethazine, Difermerine, Dihexyverine, Diphenanil, Methylsulfate, N-(1,2-Dipheylethyl)nicotinamide, Dipiprovine, Dipionium, Emepronium, Endobenzylquine, Ethopropazine, Ethybenztropine,

Ethylbenzydramine, Etomidoline, Eucatropine, Fenpiverinium, Fentonium, Flutropium, Glycopyrrolate, Heteronium, Hexocyclium Methyl Sulfate,

Homatropine, Homatropine Methyl Bromide, Hyoscyammine, Ipratropium, Isopropamide, Levomepate, Meceoxamine, Mepenzolate, Metcaraphen, Methantheline, Methixene, Methscopolamine, Octamylamine, Oxybutynin, Oxyphencyclidime, Oxyphenonium, Pentapiperide, Penthionate, Phencarbamide, Phenglutaramide, Pipenzolate, Piperidolate, Piperilate, Poldine Methysulfate, Pridinol, Prifinium,
Propyromazine, Scopolamine N-Oxide, Stilonium, Stramonium, Sulprotonium, Thixenol, Thiphenamil, Tiemonium, Timpepidium, Tiquizium, Tridihexethyl Iodide, Trihexyphenidyl, Hydrochloride, Tropacine, Tropenzile, Tropicamide, Tropium, Valethamate, Xenytropium.

ANTICONVULSANT Such as Acetylpenteturide, Albutoin, Aloidon, Aminoglutethimide, 4-Amino-3-Hydroxybutyric Acid, Atrolactamide, Beclamide, Buramate, Carbamazepine, Cinromide, Clonazepam, Decimemide, Diethadione, Dimethadione, Doxenito, Eterobarb, Ethadione, Ethosuximide, Ethotoin, Fluresone.


ANTIDEPRESSANT

Bicyclics such as Binedaline, Caroxazone, Citalopram, Dimethazan, Indalpine, fencamine, Indeloxazine, Nefopam, Nomifensine, Oxitriptan, Oxpertine, Paroxetine, Sertraline, Thiazesim, Trazodone, Zometapine,

Hydrazides/Hydrazines such as Benmoxine, Iproclozide, Iproniazid, Isoarboxazid, Nialamide, Ictamoxine, Phenelzine.

Pyrrolidones such as Continine, Rolicyprine, Rolipram.
Tetracyclcs such as Maprotiline, Metralindole, Mianserine, Oxaprotiline.
Tricyclcs such as Adinazolam, Amitriptyline, Amitriptylinoxide, Amoxapine, Butriptyline, Clomiparamine, Demexiptiline, desiparamine, Dibenepin, Dimetacrine, Dothiepin, Doxepin, Fluacazine, Impramine, Impramine N-Oxide, Iprindole, Lofepramine, Melitracen, Metapramine, Nortriptyline, Noxiptilin, Opipramol, Propizepine, Protriptyline, Quinupramine, Tianeptine, trimiparamine.
Others such as Benactyzine, Bupropin, Butacetin, Deanol, Deanol Aceglumate, Deanol Acetamidebenzoate, Dioxadrol, etoperidone, Febarbamate, Femoxetine, Fenpentadiole, Fluoxetine, Fluvoxamine, Hematoporphyrin, Hypercinin, Levophacetoperane, Lithium Medifoxamine, Minaprine, Moclobemide, Oxaflozane, Piberaline, Polycyclic Imides, Prolintane, Pyrisuccideanol, Rubidium, Sulpiride, Sulproside, Teniloxazine, Thozalinone, Tofenacin, Toloxatone, Tranlycypromine, L-Tryptophan, Viloxazine, Zimeldine.

**ANTIDIABETIC**

Biguanides such as Buformine, Metformin, Phenformin.

Sulfonlturea Derivatives such as Acetohexamide, 1-Butyl-3-metanilyurea, Carbutamide, Chlorpropamide, Glibornuride, Gliclazide, Glipizide, Gliquidone, Glisoxepid, Glyburide, Glybuthiazol(e), Glybuzole, Glyhexamide, Glymidine, Glypinamide, Phenbutamide, Tolazamide, Tolbutamide, Tolyclamide.

Others such as Acarbose, Benzylthiazolldone-2,4-dione, Calcium Mesoxalate, Miglitol.

**ANTIDIARRHEAL** such as Acetyltannic Acid, Albumin Tannate, Alkofanone, Aluminium Salicylates, Catechin, Difenoxin, diphenoxylate, Lidamidone, Loperamide, Mebiquine, Trillium, Uzarin.

**ANTIDIURETIC** such as Desmopressin, felypressin, Lypressin, Ornipressin, Oxcinchophen, Terlipressin, Vasopressin.

**ANTIESTROGEN** such as Delmadione Acetate, Ethamoxytriphetol, Tamoxifen, Toremifene

**ATRIFUNGAL (ANTIBIOTICS)**

Polyenes such as Amphotericin-B, Canadicidin, Dermostatin, Filpin, Fungichromin, Hachimycin, Hamycin, Lucensomycin, Mepartricin, Natamycin, Nystatin, Pecilocin, Perimycin.
Others such as Azaserine, Griseofulvin, Oligomycins, Pyrrolnitrin, Siccanin, Tubercidin, Viridin.

ANTIFUNGAL (SYNTHETIC)

Allylamines such as Naftifine, Tebinafine.

Imidazoles such as Bifonazole, Butoconazole, Chlordantoin, Chlormidazole, Cloconazole, Clotrimazole, Econazole, Enilconazole, Fenticonazole, Isoconazole, Ketoconazole, Miconazole, Omoconazole, Oxiconazole, Nitrate, Sulconazole, Tioconazole.

Triazoles such as Fluconazole, Itraconazole, Terconazole.

Others such as Acrisorcin, Amorolfine, Biphenamine, Bromosalicychloranilide, Buclosamide, Chlophenesin, Ciclopirox, Cloxyquin, Coparaffinate, Diamthazole, Dihydrochloride, Exalamide, Flucytosine, Halethazole, Hexetidine, Loflucarbon, Nifuratel, Potassium Lodide, Propionates, Propionic Acid, Pyrithione, Salicylanilide, Sulbentine, Tenonitroazole, Tolciclate, Tolindate, Tolnaftate, Tricetin, Ujothion, Undecylenic Acid

ANTIGLAUCOMA such as Dapiprazole, Dichlorphenamid, Dipivefrin, Pilocarpine.

ANTIGONADOTROPIN such as Danazol, Gestrinone, Paroxypropione

ANTIGOUT such as Colchicine, Probenecid, Sulfinpyrazone

Antihistimic Alkylamine Derivatives Such as Acrivastine, Bamipine, Brompheniramine, Chlorpheniramine, Dimethindene, Tolpropamine, Triproldine

Aminoalkyl Ethers such as Bietabautine, Bromodiphenhydramine, Carbinoxamine, Clemastine, Diphenlypyraline, Doxylamine, Embrymine, Medrylamine, Mephenhydramine, p-Methildiphenhydramine, Orphenadrine, Phenyltoloxamine, Piprinhydrinate, Setasine
Ethlenediamine Derivates Such as Alloclamide, p-Bromtripelennamine, Chloropyramine, Chlorothen, Histapyrodine, Methafurylene, Methaphenilene, Methapyrilene, Phenbenzamine, Pyrilamine, Talastine, Thenyldiamine, Thozylamine, Tripelennamine, Zolamine
Piperazines such as Certrizine, Chlorcyclizine, Clocinizine, Hydroxyzine Tricycles
Phenothiazines such as Ahistan, Etymemazine, Fenethazine, N-Hydroxyethy promethazine, Isopromethazine, Mequitaz Inc, Promethazine, Pyrathiazine, Thiaziniamium Methyl Sulfate
Others such as Azatadine, Clobenzepam, Cyproheptadine, Deptropine, Isothipendyl, Loratadine, Prothipendyl
Others Such as Antazoline, Cetoxime, Clemizole, Clobenztropine, Diphenazoline, Diphenhydramine, Mebhydroline, Phenindamine, Terfenadine, Tritoqualine
Antihyperlipoproteinemic
Aryloxyalkanoic Acid Derivatives such as Bazafibrate, Binifibrate, Ciprofibrate, Clinofibrate, Clofibrate, Clofibraric Acid, Etonfibrate, Fenofibrate, Gemfibrozil, Nicofibrate, Pirifibrate, Ronifibrate, Simofibrate, Theofibrate
Bile Acid Sequesterants such as Cholestyramine Resin, Colestipol, Polidexide
HMG CoA Reductase Inhibitors such as Lovastatin, Pravastatin, Simvastatin Nicotinic Acid, Derivatives Aluminium Nicotinate, Acipimox, Niceritol, Nicolonate, Nicomol, Oxiniacic Acid
Thyroid Hormones/Analogis such as Ethroxate, thyropropic Acid
Others such as Acifran, Azacosterol, Benfluorec, ß-Benzalbutyramide, Benzodioxole, Carnitine, Chondroitin Sulfate, Clemestone, Detaxtran, Dextran Sulfate Sodium, 5,8,11,14,17-Eicosapentaenoic Acid, Eritadenine, Farnesyalted tetrahydro-naphthalenols, Furazbol, Meglutol, Melinamide, Mytatrienediol,Naphyl-tetrahydronaphtyl-diphosphonates, Ornithine, γ-Oryzanol, Pentethine, Penataerythritol,
Tetraacetate, a-Phenylbutyramide, Phylate Acids And Salts, Pirozadil, Probecol, a-
Sisoteral, Sultosilic Acid, Tiadenol, Triparanol

ANTIHYPERTENSIVE

Benzothiadiazine Derivatives such as Althiazide, Bendroflumethiazide, Benzthiazide,
Benzylhydrochlorothiazide, Buthiazide, Chlorothiazide, Chlorthalidone,
Cyclopenthiazide, Cyclothiazide, Diazoxide, Ethiazide, Ethiazide, Fenquizone,
Hydrochlorothiazide, Hydroflumethiazide, Metyclothiazide, Meticran Metolazone,
Paraflutizide, Polythiazide, Tetrachlormethiazide, Trichlormethiazide

N-Carboxyalkyl (peptide/lactam) Derivatives such as Alacepril, Captopril, Cilazapril,
Enalapril, Enalaprilat, Fosinopril, Lisinopril, Moveltipril, Perindopril, Quinapril, Ramipril

Guanidine Derivatives Bethanidine, Debrisoquin, Gyanacline, Guanadrel, Guanazodine,
Guanchidine, Guanochlor, Guanoxabenz, Guanoxan

Hydrazines/Ohthalazines such as Cadralazine, Dihydralazine, Endralazine,
Hydracarbazine, Hydralazine, Pheniprazine, Pildralazine, Todralazine

Imidazole Derivatives such as Lofexidine, Phentolamine, Tolonidine

Quaternary Ammonium Compounds Azamethionum Chlorisondamine,
Hexamethonium, Pentacynium, Bis(methylsulfate), Pentamethonium, Pentolinium
Tartate, Phenactopinium, Trimethidiunum Methosulfate

Quinazoline Derivatives such as Alfuzosin, Bunazosin

Reserpine Derivatives such as Bietaserpine, Deserpidine, rescinnamine, Reserpine,
Syrosingopine

Sulfanoamide Derivatives such as Ambuside, Clopamide, Furosemide, Indapamide,
Quinethazone, Tripamide, Xipamide
Others such as Aimaline, g-Aminobutyric Acid, Bufenniode, Chlorthalidone, Cicletaine, Ciclosidomine, Cryptenamine Tannates, Flosequinan, Indoramin, Ketanserin, Metbutamate, Mecamylamine, Methyldopa, Methyl 4-Pyridyl Ketone Thiosemicarbarzone, Metolazone, Minoxidil, Muzolimine, Pargyline Glycine Aminopropargyl Diols, Protoveratrine, Raubasine, Rescmetol, Saralasin, Sodium Nitroprusside, Ticrynafen, Trimethaphan, Camsylate, Trysinase, Urapidil

ANTIHYPERTHYROID Such as 2-Amino-4-methyl-thiazole, 2-Aminothiazole, Carbimazole, 3,5-Dibromo-L-tyrosine, 3,5-Diiodotyrosine, Hinderin, Iodine, Iothiouracil, Methimazole, Methylthiouracil, Propylthiouracil, Sodium Perchlorate, Thibenzazoline, Thiobarbital, 2-Thiouracil

ANTIHYPTENSIVE Such as Amezinium Methyl Sulfate, Angiotensin Amide, Etifelmin, Etilerfin, Gepetrine

ANTIHYPTHYROID such as Levothyroxine, Liothyronine, Thyroid, Thyroidin, Thyroxine, Tiratricol

ANTI-INFLAMMATORY (NONSTEROIDAL)

Aminoarylcarboxylic Acid Derivatives such as Etofenamate, Meclofenamic Acid, Mefanamic Acid, Niflumic Acid

Arylacetic Acid Derivatives such as Acemetacin, Amfenac, Cinmetacin, Clopirac, Diclofenac, Fenoclofenac, Fenclorac, Fenclozic Acid, Fentiazac, Glucametacin, Isoxepac, Lonazolac, Metizaine Acid, Oxametacine, Proglumatcin, Sulindac, Tiaramide, Tolmetin

Arylbutyric Acid Derivatives such as Butibufen, Fenbufen

Arylcarboxylic Acids such as Clidanac, Ketorolac, Tinoradine

Arylpropionic Acid Derivatives such as Bucloxic Acid, Carprofen, Fenoprofen, Flunosaprofen, Ibuprofen, Ibuproxxam, Oxaprozin, Piletoprofen, Pirprofen, Pranoprofen, Protizinic Acid, Tiaprofenic Acid

Pyrazoles such as Mepirizole
Pyrazolones such as Clofezone, Feprazone, Mofebutazone, Oxyphenbutazone,
Phenylbutazone, Phenyl Pyrazolidininones, Suxibuzone, Thiazolinobutazone

Salicylic Acid Derivatives such as Bromosaligenin, Fendosal, Glycol Salicylate,
Mesalamine, 1-Naphthyl Salicylate, Olsalazine, Sulfasalazine

Thiazinecarboxamides such as Droxicam, Isoxicam, Piroxicam

Others such as e-Acetanidocaproic Acid, S-Adenosylmethionine, 3-Amino-4-
hydroxybutyric Acid, Amixetrine, Bendazac, Bucolome, Carbazones, Difenpiramide,
Ditazol, Guarazulene, Heterocyclic Aminoalkyl Esters of Mycophenolic Acid And
Derivatives, Nabumetone, Nimesulide, Orgotein, Oxaceprof, Oxazole Derivatives
Paranyline, Pifoxime, 2-substituted-4, 6-di-tertiary-butyl-s-hydroxy-1,3-pyrimidines,
Proquazone, Sialyl Lewis Dimers, Tenidap

ANTIMALARIOAL such as Acedapsone, Alphaaminoquinolines, 40 Aminoquinolines,
Amodiaquin, Arteether, Artmether, Artemisin, Artesunate, Bebeerine, Chirata,
Chlorguanide, Chloroquine, Chlopoguanil, Chinchone, Cinchonidine, Cinchonine,
Cycloguanil, Euqnine, Gentioicrin, Halofantrine,

Mefloquine Hydrochloride, 3-Methylarsacetin, Pamaquine, Plasmocid, Primaquine.
Pyrimethamine, Quinacrine, Quinine, (Acids, Salts And Derivatives), Quinine Formate,
Quinine Gluconate, Quinine Tannate, Quinine Urea Hydrochloride, Quinocide,
Quinoform, Quinoline, Sodium Arsenate, Diabasic

ANTIMIGRAINE such as Akpiopride, Dihydrergotamine, Ergocornine, Ergocorninine.
Ergocryptine, Ergot, Ergotamine, Flumefrozone Flumefrozone, Aetae, Fonazine,
Methyserg(id(e), Oxetorone, Pizotyline, Sumatriptan

ANTINAUSEANT such as Acetylleucine Monoethanolamine, Bietanautine, Bromopride,
Buclizine, Clebopride, Cyclizine, Dimenhydrinate, Diphenidol, Domperidone,
Gransetron, Meclizine, Methaltal, Metoclopramide, Metopimazine, Nabilone,
Ondansteron, Oxypendyl, Pipamizine, Piprinhydrinate, Scopolamine,
Tetrahydrocannabinols, Thiethylperazine, Trimethobenzamide

ANTIMEOPLASTIC

Alkyl agents: Alkyl Sulfonates such as Busulfan, Imposulfan, Piposulfan, Aziridines
such as Benzodepa, Carboquone, Meturedepa, Uredepa

Ethylenimines ans Methylmelamines such as Altertamine, Triethylenemelamine,
Triethylenephosphoramde, Triethylenethiophosphoramde, Trimethylolomelamine

Nitrogen Mustards such as Chlorambucil, Chlornaphazine, Chlophosphamide,
Chclophosphamide, Estramustine, Ifosfamide, Mechloretamine, Mechloretamine
Oxide Hydrochloride, Melphalan, Novembichin, Phenesterine, Prednimustine,
Trofosfamide, Uracil Mustard

Nitrosoureas Carmustine, Chlorozotocin, Fotemustine, Lomustine, Nimustine,
Ranimustine

Others such as Dacrabazine, Mannomustine, Mitobronitol, Mitolactol,
Pipobroman

Antibiotics such as Aclacinomycins, Actinomycin F1, Anthramycin, Azaserine,
Bleomycins, Cactinomycin, Carubicin, Carzinophilin, Chromomycins, Dactinomycin,
Daunorubicin, Carzinophilin, Chromomycins, Dactinomycin, Daunorubicin, 6-Diazo-5-oxo-L-naroleucine, Doxorubicin, Epirubicin, Mitomycins, Mycophenolic Acid,
Nogalamycin, Olivomycins, Peplomycin, Plicamycin, Profiromycin, Puromycin,
Streptonigrin, Streptozocin, Tubercidin, Ubenimex, Zinostatin, Zorubicin

Antimetabolites

Folic Acid Analogs such as Denepterin, Methotrexate, Pteropterin, Trimetrexate Purine
Analogs Such as Fludarabine, 6-Mercaptopurine, Thiamiprine, Thiguanaine
Pyrimidine Analogs such as Ancitabine, Azacitidine, 6-Azauridine, Carmofur, Cytarabine, Dibexyuridines, Doxifluridine, Enocitabine, floxuridine, Fluororacil, Tegafur Enzymes such as L-Asparaginase, Pulmozyme

Others such as Aceglatone, Aldophosphamide Glycoside, Aminolevulinic Acid, Amsacrine, Bestabucil, Bisantrene, Carnoplatin, Deformide, Demecolcine, Diaziquone, Elfornithine, Elliptinium Acetate, Etopluscid, Etoposide, Gallium Nitrate, Hydroxyurea, Interferon-α, Interferon-β, Interferon-γ, Interleukine-2, Lentinon, Lonidamine, Mitoguazone, Mitoxantrone, Mopidamol, Nitracrine, Pentostatin, Phenamet, Pirarubicin, Podophyllinycin Acid, 2-Ethylhydrazide, Procarazine, PSK®, Razoxane, Sizofiran, Spirogermanium, Taxol, Teniposide, Tenuazonic Acid, Triaziquone, 2,2',2''-Trichlorotriethylamine, Urethan, Vinblastine, Vincristine, Vindesine

**ANTINEOPLASTIC (HORMONAL)**

Androgens such as Calusterone, dromistanolone Propionate, Epitiostanol, Mepitiostane, Testolactone Antiadrenals such as Aminogluthethimide, Mitotane, Trilostane

Antiandrogens such as Flutamide, Nilutamide

Antiestrogens such as Aromatase Inhibiting 4(5)-Imidazoles

**ANTINEOPLASTIC ADJUNCT**

Folic Acid Replenisher such as Frolicin Acid

**ANTIPARKINSONIAN** such as Amantadine, Benzerazide, Bictanaurine, Biperiden, Budipine, Carbidopa, Deprenyl, Dexetimide, Diethazine, Droxidopa, Ethopropazine, Ethylbenzyhdntamine, Levodopa, Piroheptine, Pridinol, Prodipine, Terguride, Tiapride, Tigloidine

**ANTIPHEOCHROMOCYTOMA** such as Metyrosine, Phenoxybenzamine

**ANTIPNEUMOCYSTIS** such as Efformithine

**ANTIPROSTATIC HYPERSTROPHY** such as Proscar®
ANTIPROTOZOAL (LEISHMANIA) such as Ethylstinamine, Hydroxystibamidine, N-Methylglucamine, Pentamidine, Stilbamidine

ANTIPROTOZOAL (TRICHOMONAS) such as Acearson, Aminitroazole, Anisomycin, Azanidazole, forminitrazole, furazolidone, Hzanidazole, Lauroguadine, Metronidazole, Nifuratel, Nimorazole, Silver Picrate, Tenonitroazole

ANTIPROTOZOAL (TRYPANOSOMA) such as Benznidazole, Eflomithine, M Melarsoprol, Mifutrimox, Oxophenarsine, Puromycin, Quinapyramine, Suiramin Sodium, Trypan Red, Tryparasmide

ANTIPRURITIC such as Camphor, Cyproheptadine, Dichlorisone, Glycine, Halmetasone, 3-Hydroxycamphor, Menthol, Mesulphen, Methdilazine, Phenol, Spirit Of Camphor, Trimeprazine

ANTIPSORLATIC such as Acitretin, Anthralin, 6-Azauridine, Bergrapten(e), Chrysarobin, Eoretinate, Pyrogallol

ANTIPSYCHOTIC

Butyrophenones such as Benperidol, Bromperidol, Droperidol, Fluanisone, Haloperidol, Melperone, Moperone, Pipamperone, Sniperone, Timiperone, Trifluperidol

Phenothiazines such as Acetophenazine, Bhutaperazine, Carphenazine, Chlorproethazine, Chlorpromazine, Clospirazine, Mepazine, Mesoridazine, Methoxympromazine, Metofenazate, Oxaflumazine, Perazine, Pericyazine, Perimethazine, Perchloperazine, Promazine, Sulforidazine, Thiopropazate, thioridaziane, Trifluoperazine, Triflupromazine

Thioxanthenes such as Chlorprothixene, Clopentixol, Flupentixol, Thiothixene

Other such as Alizapride, Amisulpride, 4-Arylpiperazines, 4-Arylperdines, Buramate, Fluspirilene, Moledone, Penfluoridol, Pimozide, Spirilene, Sulpiride
ANTIPYRETIC such as Aconine, Aconite, Aconitine, Phenicarbazide

ANTIRICKETTSIAL such as p-Aminobenzoic Acid

ANTISEBORRHEIC such as 3-O-Lauroylpyridoxol Diacetate, Piroctone, Resorcinol, Selenium Sulfides, Tioxolone

ANTISEPTIC
Guanidines Such as Alexidine, Ambazole, Chlorhexidine, Picloxydine
Halogens/Halogen Compounds Such as Bronyl Chloride, Calcium Iodate, Iodine Monochloride, Iodine Trichloride, Lodoform, Povidone-Iodine, Sodium Hyopchlorite, Sodium Iodate, Symclosene, Thymol Iodide, Triclocarban, Triclosan, Troclosene Potassium

Nitrofurase such as Flrazolidone, 2-(Methoxymethyl)-5-Nitofuran, Nidroxyzone, Nifuroxime, Nifurzide, Nitrofurazone

Phenols such as Acetomerocotol, Chloroxylenol, Hexachlorophene, 1-Napthyl Salicylate, 2,4,6-Tribromo-m-cresol, 3,4',5-Trichlorosalicylanilide

Quinolines such as Aminoquinuride, Chloroxine, Chlorquinadol, Cloxyquin, Ethylhydrocupreine, Halquinol, Hydrastine, 8-Hydroxquinoline Sulfate.

Others such as Boric Acid, Chloroazodin, m-Cresyl Acetate, Cuperic Sulfate, Ichthammol

ANTISPASMODIC such as Alibendol, Ambucetamide, Aminpromazine, Bietamiverine, Butaverine, Butropium, Carverine, Cimetropium, Cinnamedrine, Clebopride, Coniine, Hydrobromide, Coniine, Difemerine, Diisopromine, Dioxaphetyl Butyrate, Drofenine, Ethaverine, Feclemine, Fenalamide, Fenoverine, Fenpiprane, Flavoxate, Flopropione, Gluconic Acid, Guaiactamine, Hydramitrazine, Hymecromone, Leiopyrrole, Mebeverine, Moxaverine, Nafiverine, Octaverine, Phenamicide, Phloroglucinol, Pinaverium, Piperilate, Pipoxolan, Hydrochloride, Pramiverin, Properidine, Propivane,
Propyromazine, Prozapine, Racefemine, Rociverine, Spasmolytol, Stilonium, Tiropramide, Trepibutone, Tricromyl, Trifolium, Trimebutine, N, N-1 Trimethyl-3,3-Diphenylpropylamine

ANTITHROMOBOTIC such as Anagrelide, Argatroban, Cilostazol, Daltroban, Defibrotide, Enoxaparin, Fraxiparine®, Indobufen, Lamoparan, Ozagrel, Picotamide, Plafibrade, Tedelparin, Ticlopidine, Trifusul.

ANTITUSSIVE such as Allocamide, Amicibone, Benproperine, Benzonatate, Bibenzonium, Bromoform, Butamirate, Butethamate, Caramiphen Ethanedisulfonate, Carbetapentane, Chlophedianol, Clobutinol, Cloperastine, Codeine Methyl Bromide, Codeine N-Oxide, Codeine Phosphate, Codeine Sulfate, Cyclexanone, Dextromethorphan, Dibunate Sodium, Dihydrocodeine, Dihydrocodeinone Enol Acetate, Diméromfan, Dimethoxanate α, α-Diphenyl-2-piperidinepropanol, Dropropizine, Drotebanol, Eprazinone, Ethyl Dibunate, Ethylmorphine, Fominoben, Guiaiapate, Hydrocodone, Isoaminile, Levopropoxyphene, Morclofene, Narceine, Normethadonem Noscapine, Oxeladin, Oxolamine, Pholcodine, Picoperine, Pipazethate, Piperidine, Prenoxdiazine, Racemethorphan, Taziprinon, Hydrochloride, Tipepidine, Zipeprol

ANTITULCERATIVE such as Aceglutamide Aluminium, Complex, ε-Acctamidocaproic Acid Zinc Salt, Acetoxolone, Arbaprostil, Benexate Hydrochloride, Bismuth Subcitrate Sol(Dried), Carbenoxolone, Cetraxate, Cimetidine, Enprostil, Espanazole, Famotidine, Ftaxilide, Gefarnate, Guaiiazulene, Irgosladine, Nizatidine, Omeprazole, Ornoprostil, Y-Oryzanol, Pifarnine, Pirenzepine, Plaunotol, Ranitidine, Rioprostil, Rosaprostol, Rotraxate, Roxatidine Acetate, Sofaicone, Spizofurone, Sucralfate, Teprenone, Trimoprostil, Thrithiozine, Troxipide, Zolimidine.

ANTIUROLITHIC such as Acetohydroxamic Acid, Allopurinol, Potassium, Citrate, Succiminide.

ANTIVENIN such as Lyovac®, Antivenin.

ANTIVIRAL
Purines/Pyrimidinones such as 2-Acetyl-Pyridine 5-((2-pyridylamino) thiocarbonyl), Thiocarbonohydrazones, Acyclovir, Dideoxyadenosine, Dideoxycytidine, Dideoxyinosine, Edoxudine, Floxuridine, Ganciclovir, Idoxuridine, MADU, Pyridinon, Trifluridine, Vidrarbine, Zidovudine.

Others such as Acetylleucine Monoethanolamine, Acridianamine, Alkylisooxazoles, Amantadine, Amidinomycin, Cuminaldehyde Thiosemicarbzone, Foscarinet Sodium, Kethoxal, Lysozyme, Methisazone,Moroxidine, Podophyllotoxin, Ribavirin, Rimantadine, Stallimycin, Statolon, Thymosins, Tromantadine, Xenazoic Acid.

ANXIOLYTIC
Arylpiperazines such as Buspirone, Gepirone, Ipsapirone,


Carbamates such as Cyclabarmate, Emylicamate, Hydroxyphenamate, Meprobamate, Phenoprobamate, Tybamate.

Others Alpidem, Benzocatamine, Captodiamine, Chloromezanone, Etifoxine, Fluoresone, Glutamic Acid, Hydroxyzine, Meclorasurea, Mephenoxalone, Oxanamide, Phenaglycodol, Suriclone.

BENZODIAZEPINE ANTAGONIST such as Flumazenil.

BRONCHODILATOR
Ephedrine, Derivatives such as Albuterol, Bambuterol, Bitolterol, Carbuterol, Clenbuterol, Clorprenaline, Dioxyethidine, Eprozinol, Etafedin, Ethynorepinephrine, Fenoterol, Hexoprenaline, Isoetharine, Isoproterenol, Mabuterol, Metaproterenol, N-
Methylephedrine, Pirbuterol, Procatrol, Protokylol, Reproterol, Rimiterol, Soterenol, Terbutaline, Tulobuterol.

Quaternary Ammonium Compounds such as Clutropium Bromide, Oxitropium Bromide.

Xanthine Derivatives such as Acefylline, Acefylline Ambuphylline, Aminophylline, Bamifylline, Choline Theophyllinate, Doxofylline, Dyphylline, Enprofylline, Etamiphylline, Etofylline, Guaithylline, Proxyphylline, Theobromine, 1-Theobromineaceatic Acid, Theophylline.

Others such as Methoxyphenamine, Tretquinol.

CALCIUM CHANNEL BLOCKER

Arylalkylamines such as Bepridil, Ditiazem, Fendiline, Gallopamil, Terodiline, Verapamil.

Dihydropyridine derivates such as Felodipine, Isradipine, Nicardipine, Nifedipine, Nilvadipine, Nimodipine, Nisoldine, Nitrendipine
Piperazino Derivatives Such as Flunarisine
Others Such as Perhexilene.

CALCIUM REGULATOR such as Calcifediol, Calcitonin, Calcitriol, Clodronic Acid, Dihydrotachysterol, Elctonin, Etidronic Acid, Ipriflavone, Pamidronic Acid, Parathyroid Hormone, Teriparatide Acetate.
CARDIOTONIC such as Acetyldigitoxins, 2-Amino 4-Picoline, Amrinone, Buclasdesine, Cerberose, Camphotamide, Convallatoxin, Cymarin, Denopamine, Deslanoside, Ditalin, Digitalis, Digitoxin, Digoxin, Dobutamine, Dopamine, Dopexamine, Enoximone, Erythrophleine, Fenalcomine, Gitalin, Gitoxin, Glycocyamine, Heptaminol, Hydrastinine, Lanotodises, Metamivam,

Substituted Methoxyphenyl-4, 5-dihydro-3(2H)-pridazinones, Milrionone, Neriifolin, Oleandxin, Ouabain, Oxyledrine, Prenalterol, Proscillardin, Resibusogenin, Scillaren, Scillarenin, Strophanthin, Sulmazole, Theobromine, Xamoterol.
CHELATING AGENT such as Deferoxamine, Edetate Calcium Disodium, Edetate Disodium, Edeate Sodium, Edetate Trisodium, Pentetate Calcium Trisodium, Pentetic Acid, Succimer, Trientine.

CHOLECYSTOKININ ANTAGONIST (CCK Antagonist)

CHOLELITHOLYTIC AGENT such as Chenodiol, Methyl tert-Butyl Ether, Monoocotanoin, Ursodiol.

CHOLERETIC such as Alibendol, Anethole Trithion, Azintamide, Cholic Acid, Ciclotric Acid, Clanobutin, Cyclobutyrol, Cyclovalone, Cynarin(e) Dehydrocholic Acid, Deoxycholic Acid, Dimecroctic Acid, d-Ethylbenzyl Alcohol, Exiproben, Feguprof, Fencibutirof, Fenipentol, Florantyrone, Hymecromone, Menbutone, 3- (O-Methoxyphenyl)-2-Phenylacrylic Acid, Metochalcone, Moquizone, Osalmid, Ox Bile Extract, 4,4’-Oxydi-2-Butanol, Piprozolin, Prozapine, 4-Salicyloylmorpholine, Sincalide, Taurocholic Acid, Timonacic, Tocamphyl, Trepibutone, Vanitiolide.

CHOLINERGIC such as Aceclidine, Acetylcholine, Acetylcholide, Aclatonium, Napadisilate, Benzpyrinium, Bromide, Bethanechol, Carbachol, Carpronium, Demecarium, Dexpantenol, Diisopropyl Paraoxon, Echothiophate, Edrophonium, Eseridine, Furtrethonium, Isofluorophate, Methacholine, Chloride, Muscarine Neostigmine, Oxapropanium, Physostigmine, Pyridostigmine.

CHOLINESTERASE INHIBITOR such as Ambenonium, Distigmine, Galanthamine

CHOLINESTERASE REACTIVATOR such as Obidoximine, Pralidoxime CNS STIMULANT/AGENT such as Amineptine, Amphetimine, Amphetaminil, Bemegride, Benzphetamine, Brucine, Caffeine, Chlorphentermine, Cloferriclan, Claratermine, Coca, Demamyl Phosphate, Dexoxadrol, Dextroamphetamine Sulfate, Diethlpropion, N-Ethylamphetamine, Ethamivan, Fencamfamine, Fenethylline, Fenosolone, Flurothyl, Hexacyclonate Sodium, homocamfin, Mazindol, Megexamide, Methamphetamine, Methylphenidate, Nicotine, Nicorinic Agonist, Nikethamide, Pemoline,
Penthylenetrazole, Phenidimetazine, Phenmetrazine, Phentermine, Picrotoxin, Pipradrol, Prolintane, Pyrovalerone, Terahydrobenzothienpphyridines.

DECONGESTANT such as Cafaminol, nordefrin
DENTAL CATTIES PROPHYLACTIC such as sodium fluoride.
DEPIGMENTOR such as Hydroquinine, Hydroquinone, Monobenzone

DIURETIC

Organomercurials such as Chlomerodrin, Meralluride, Mercamphamide, Mercaptomerin Sodium, Mercumallyc Acid, Mercumatillin Sodium, Mercurous Chloride, Mersalyl.

Pteridines such as Furterence, Triameterene

Purines such as 7-Morpholinomethyltheophylline, Pamabrom, Protheobromine, Theobromide
Steroids such as Canrenone, Oleandrin, Spironolactone

Sulfonamide Derivatives such as Acetzolamid, Azosemidem, Bumetanide, Butazolamide, Chloraminophenamide, Clofenamide, Clorexolene, Diphenylmethane-4, 4'-Disulfonamide, Disulfamid, Ethoxzolamide, Flumethiazide, Mefruside, Methazolamide, Piretanide Torasemide.

Uracils such as Aminometradine, Amisometradine
Others such as Amanozinde, Amiloride, Arbutin, Chlorazanil, Ethacrynic Acid, Etozolin, Isosorbide, Mannitol, Methochalone, Pethexilline, Urea.

DOPAMINE RECEPTOR AGONIST such as Bromocriptine, Fenoldopam, Lisuride, Naxagolide, Pergolide.
ECTOPARASITICIDE such as Amitraz, Brenzyl Benzoate, Carbaryl, Crotamiron, DDT, Dixanthogen, Isobornyl Thiocyanocetate (Technical), Lime Sulfurated Solution Lindane, Malathion, Mercuric Oleate, Sulphur (Pharmaceutical).
ENZYME

Digestive such as α - Amylase(Swine Pancreas), Lipase, Pancrelipase, Pepsin, Rennin
Penicillin Inactivating such as Penicillinase
Proteolytic such as Collagenase, Chymopapain, Chymotrypsins, Papain, Trypsin

ENZYME INDUCER (HEPATIC) such as Flumecinol.

ESTROGEN

Nonsteroidal such as Benestrol, Broparoestrol, Chlorotrianisene, Dienestrol, Diethylstilbestrol, Diethylstilbestrol Dipropionate, Dimestrol, Fosflestrol, Hexestrol, Methallenstril, Methestrol.

Steroidal such as Colpormon, Conugated Estrogenic Hormones, Equilenin, Equilin, Esterified Estrogens Esteropipate, 17b-Estradiol, Estradiol, estradiol Benzoate, Estradiol 17b-Cypionate, Estrone, Ethibyl Estradiol, Mestranol, Moxestrol, Mytatrienediol, Polyestradiol Phosphate, Quinestriadiol, Quinestrol.

GASTRIC SECRECTION INHIBITOR such as Enterogastrone, Octreotide.

GLUCOCORTICOID such as 21-Acetoxyprofnolone, Aclclometasone, Algestone, Amcinonide, Beclomethasone, Betamethasone, Betamethasone, Dipropionate, Budesonide, Chloroprednisone, Clobetasol, Blovestasone, Cloctolone, Cloprednol, Corticosterone, Cortisone, Cortisone, Cortivazol, Deflazacort, Desonide, Desoximetasone, Dexamethasone, Diflorasone, Difucortolone, Difluprednate

Prednicarbate, Prednisolone, Prednisolone 21-Diethylaminoacetate, Prednisone
Sodium Succinate, Prednisolone Sodium Phosphate, Prednisolone Sodium 21-m-
Sulfobenzoate, Prednisolone 21-Stearoylglycolate, Prednisolone Tebutatem
Orendisolone 21-Trimethylacatate, Prednisonsone, Prednival, Prednylidene, Prednylident
21-Diethlaminoacetate, Tixocoral, Triamcinolone, Triamcinolone, Acetonide,
Triamcinolone, Benetonide, Triamcinolone, Hexacetonide, GONADSTIMULATING
PRINCIPLE such as Clofiphen, Cyclomenil, Epimestrol, FSH, HCG, LH-RH.

GONADOTROPIC HORMONE such as LH, PMSG GROWTH HORMONE INHIBITOR
such as Somatostatin

GROWTH HORMONE RELEASING FACTOR such as Semorelin
GROWTH STIMULANT such as Somatotropin
HEMOLYTIC such as Phenylhydrazine

HEPARIN ANTAGONIST such as Hexadimethrine Protamines.

HEAPIATOPROTECTANT such as Betaine, Citoline, Malotilate, Orazamide,
Phosphorylcholine, Protoporphyrin IX, Silymarin-Group, Thiotic Acid,

IMMUNOMODULATOR such as Amiprilose, Bucillamine, Ditiocarb Sodium, Inosine
Pranobex, Muroctasin, Platonin, Procodazole, Tetramisole, 6-Ary 1-5-6-
Digydroimidazol-(2,1-B) Thiazole Derivatives, Thymomodulin, Thymopentin.

IMMUNOSUPPRESSANT such as Cyclophilin, Cyclosporins, FK-506, Mizoribine,
Rapamycin, Rapamycin Sulfamates

IONEXCHANGE RESIN such as Caracrylic Resins, Resodec, Sodium Polystyren
Sulfonate
LACTATION STIMULATING HORMONE such as Prolactin

LH-RH AGONIST such as Buserelin, Goserelin, Leuprolide, Nafarelin, Triptorelin.
LIPOTROPIC such as N-Acetylmethionine, Choline Chloride, Choline Dehydrocholate, Choline Dihydrogen Citrate, Insitol, Lecithin, Methionine

LUPUS ERYTHEMATOSUS SUPPRESSANT such as Bismuth Sodium Triglycollamate, Bismuth Subsalicylate.

MINERALOCORTICOID such as Aldosterone, Deoxycorticosterone, Fludrocortisone.

MIOTIC such as Pilocarpus

MONOAMINE OXIDASE INHIBITOR such as Phenoxypropazine, Pivalybenzhydrazine

MUCOLYTIC such as Acetylcysteine, Bromhexine, Carbocysteine, Domiodol, Letosteine, Mecysteine, Mesna, Sobrerol, Stepronin, Tiopronin, Tyloxapol

MUSCLE RELAXANT (SKELETAL) such as Alfoqualone, Alcuronium, Atracurium Besylate, Baclofen, Benzoquinonium, C-Calebassine, Carisoprodol, Chlorphenesin Carbamte, Chlozoaxzone, Curare, Cyclobenzaprine, Dantrolene, Decamethonium, Eperisone, Fazadinium, Flumetramide, Gallamine, Triethiodide, Hexacarbacholine, Hexafluorenium, Idroclamide, Lauexium Methyl Sulfate, Leptodactylene, Memantine, Mephenesin, Metaxalone, Methocarbamol, Metocurine Iodide, Pancuronium, Pipecuriym, Promoxilane, Quinine Sulfate, Styramate, Succinylcholine, Succinylcholine Suxethonium Bromide, Tetrazepam, Thiocholchicoside, Tizanidine, Tolperisone, Tubocurarine, Vecuronium, Zoxolamien.

NARCOTIC ANTAGONIST such as Amphenazole, Cyclazocine, Levallorphan, Nadide, Nalmagene, Nalorphine, Nalorphine Dinicotinate, Naloxone, Naltrexone.

NEUROPROTECTIVE such as Dizocilpine

NOOTROPIC such as Aceglutamide, Acetylcaritnine, Aniracetam, Bifematlane, Exifone, Fipexide, Idebenone, Indeloxazone, Nizofenone, Oxiracetam, Piracetam, Propentofylline, Propentofylline Pyritinol.
OPHTHALMIC AGENT such as 15-Ketoprostaglandins.

OVARIAN HORMONE such as Relaxin

OXYTOCIC such as Carboprost, Cargutocin, Deaminoxytocin, Erogonovine, Gemeprost, Methylergonovine, Oxytocin, Pituitary (Posterior), Prostaglandin E2, Prostaglandin F2a, Sparteine.

PEPSIN INIBITOR such as Sodium Amylosulfate
PERISTALTIC STIMULANT such as Cisapride


PROLACTIN INHIBITOR such as Metagoline

PROSTAGLANDIN/PROSTAGLANDIN ANALOG such as Bmeprost, Prostacyclin, Prostaglandin E1, Sulprostone

PROTEASE INHIBITOR such as Aprotinin, Camostat, Ganexate, Nagamostat

RESPIRATORY STIMULANT such as Almitrine, Dimefine, Dimorpholamine, Doxapram, Lobeline, Mepixanox, Pimecione, Sodium, Succinate, Tacrine

SCLEROSING AGENT such as Ethanolamine, Ethylamine, 2-Hexyldecanoic Acid, Sodium Ricinoleate, Sodium Tetradecyl Sulgate, Tribenoside
SEDATIVE/HYPNOTIC

Acyclic Ureides such as Acecarnromal, Apronalide, Bomisovalum, Capuride, Carbromal, Eclyurea, Alcohols such as Chlorhexadol, Ethchlorvynol, 4-Methyl-5-thiazolethanol, Tert-Pentyl Alcohol, 2,2,2,-Trichloroethanol

Amides such as Butoctamide, Diethylbromoacetamide, Ibrotamide, Isovaleryl Diethylamide, Niaprazine, Tricetamide, Trimerozine, Zodipidem, Zopiclone, Barbituric Acid Derivatives Such as Allobarbital, Amobarbital, Aprobarbital, Barbital, Brailabarbital, Butabarbital, Sodium, Butalbital, Burallylonal, Butethal, Carbobarbital, Cyclobarbital, Cyclopentobarbital, Enallylpropydam, 5-Ethyl-5-(Piperidyl) Barbituric Acid, 5-Furfuryl-5-Isopropylbarbituric Acid, Heptabarbital, Hexethal, Sodium, Hexobarbital, Mepobarbital, Methitural, Narcocobarbital, Neolarbital, Prntobarbital Sodium, Phenallylmal, Phenobarbital, Phenobarbital Sodium, Phenylmethylbarbituric Acid, Probarbital, Propallylonal, Proxabarbal, Reposal, Secobarbital Sodium, Talbutal, Tetrabarbital, Vinbarbital Sodium, Vinylbiral

Benzodiazipine Derivatives such as Brotizolam, Doxefazopam, Estazolam, Flunitrazopam, Flurazopam, Halodaxolam, Loprazolam, Lormetazepam, Nitrazepam, Quazepam, Temazepam, Triazolam

Bromides such as Ammonium Bromide, Calcium Bromide, Calcium Bromilactobionate, Lithium Bromide, Magnesium Bromide, Potassium Bromide, Sodium Bromide

Carbamates such as Amyl Carbamate(Tertiary), Ethinamide, Hexaprpymate, Meparfynol, Carbamate, Novonal, Tricholorourethan

Chloral Derivatives such as Carbocloral, Chloral Betaine, Chloral Formamide, Chlotal Hydrate, Chloralantipyrine, Dichloralphenazone, Pentaerythritol Chloral, Triclofos

Piperidinediones such as Glutehimide, Methyprylon, Piperione, Pyrithydione, Taglutimide, Thalidomide
Quinazolone Derivatives such as Etaqualone, Mecloqualone, Methaqualone Others Such as Acetal, Acetophenone, Aldol, Ammonium Valerate, Amphetamine, d-Bornyl a-Bromoisovalerate, d-Bornyl Isovalerate, Bromoform, Calcium 2-Ethylbutanoate, Carfinate, a-Chlorolose, Clomethiazole, Cyclopredim, Doxylamine, Etdroxyzine, Etomidate, Feradiazole, Homofenazine, Hydrobromic Acid, Mecloexamime, Menthol Valerate, Opium, Paraldehyde, Perlapine, Propiomazine, Rilmazafone, Sodium Oxybate, Sulfonethylmethane, Sulfonmethane

THROMBOLYTIC such as APSAC, Plasmin, Pro-Urokinase, Streptokinass, Tissue Plasminogen Activator, Urokinass

THYROTROPIC HORMONE such as TRH, TSH

MISCELLANEOUS- Vitamins, Minerals as well as other Nutrients, Vit B1,B2,B6,B12 and other water soluble vitamins, Vitamin C, Vitamin A,D,E And Other Oil Soluble Vitamins, Iron, Zinc and Other Micronutrients and their combinations with Vitamins, Antioxidants i.e. Betacarotene and combination thereof with Vitamins, Gensing and other rejuvenants and suitable combinations of drugs disclosed above.

The suitable mucoadhesive agents include cellulose derivatives like methyl cellulose, hydroxypropylmethyl cellulose, hydroxypropyl cellulose, cellulose acetate phthalate, cellulose acetate, cellulose acetate butyrate, cellulose acetate propionate, cellulose acetate trimellitae, cellulose carboxymethyl others and their salts, hydroxypropymethyl cellulose phthalate, hydroxypropylmethyl cellulose acetate succinate, polyethylene, polyvinyl acetate (homopolymer), polyvinyl acetate phthalate, propylene glycolalginlate, PVM/MA copolymer, PVP/dimethiconylacrylate/ polycarbamyl/polyglycolester, PVP/dimethylaminoethylmethacrylate/ polycarbamyl polyglycol ester, PVP/ polycarbamyl polyglycol ester, PVP/VA copolymer, gelatin and Gelatin derivatives.

Alginates, Carbomers, Polycarbophils.

Methacrylic acid copolymers.
Carrageenans, pectins, chitosans, cyclodextrins, lecithins.

Natural gums containing galactomannans like xanthan gum, Acacia, tragacanth, agar, guar gum and the like.

The fast soluble part of the sweetener gives a rapid burst of the sweetness whereas the mucoadhesive form binds to the oral mucosa and gives a prolonged sweet taste thereby effectively masking the bitter or bad after-taste of the pharmaceutically active agents.

The conventional therapeutically acceptable additives like binding agents, Lubricants, Disintegrants, Flavouring agents, colouring agents, pH modifiers and Wetting agents may be added to the pharmaceutical composition prepared.

If desired, the active pharmaceutical agent may be first subjected to the conventional taste neutralization treatment like forming matrix microspheres, microencapsulation, complexation and the like.

The compressed tablets have sufficient mechanical strength which allows them to be packed in normal push-through type blister packages and does not require special packaging like peel-off blisters.

The present invention is further exemplified by the following examples:

**Example 1**

**Step 1: Preparation of non-sugar sweetener in mucoadhesive form**

<table>
<thead>
<tr>
<th>Component</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspartame</td>
<td>20.00g</td>
</tr>
<tr>
<td>PVM/MA Copolymer(Gantrez AN 169)</td>
<td>0.40g</td>
</tr>
<tr>
<td>Acetone</td>
<td>20.00ml</td>
</tr>
</tbody>
</table>

Dissolve Gantrez AN 169 in 20 ml Acetone. Granulate Aspartame with this solution and dry at 40°C. Sift through 60 mesh sieve.

**Step 2. Tablet formulation**

<table>
<thead>
<tr>
<th>Component</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nimesulide(Drug/Pharmaceutical agent)</td>
<td>100.0mg</td>
</tr>
<tr>
<td>Mannitol</td>
<td>204.5mg</td>
</tr>
<tr>
<td>Aspartame of step 1 in mucoadhesive form</td>
<td>7.0mg</td>
</tr>
</tbody>
</table>
Sodium Starch Glycolate 3.0mg
Magnesium Stearate 4.0mg

Sift all the ingredients through 40 mesh sieve and blend. Compress into tablets at a hardness of 1 to 5 kg.

**Example 2**

**Step 1. Preparation of non-sugar Sweetener in Mucoadhesive form:**

Aspartame 20.00g
Carbomer(carbopol 934P) 0.40g
Water 20.00ml

Disperse Carbopol 934P in 20ml Water. Granulate Aspartame with it and dry at 40°C. Sift through 60 mesh sieve.

**Step 2: Tablet formulation**

Nimesulide(Drug/Pharmaceutical agent) 100.0mg
Mannitol 204.5mg
Aspartame 3.0mg
Aspartame of step 1 in mucoadhesive form 4.0mg
Flavour 1.5mg
Sodium starch glycolate 3.0mg
Magnesium Stearate 4.0mg

Sift all the ingredients through 40 mesh sieve and blend. Compress into tablets at a hardness of 1 to 5kg.

**Example 3:**

**Step: 1 Taste neutralization of drug substance.**

Ibuprofen (Drug/Pharmaceutical agent) 95.95g
Tribehenin 4.00g
Polysorbate 80 0.05g
Water 40.00ml

Heat water to about 50°C-60°C. Add polysorbate 80 and mix. Under stirring add Tribehenin followed by Ibuprofen. A wet dough will be formed. Cool it to 35°C. Size it
through 20 mesh sieve. Dry at about 45°C till moisture content is 1 to 3%. Sift through 60 mesh sieve.

**Step 2: Tablet Formulation**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>%w/w</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ibuprofen from step 1</td>
<td>200.0mg</td>
</tr>
<tr>
<td>Equivalent to Ibuprofen</td>
<td></td>
</tr>
<tr>
<td>Xylitol</td>
<td>204.5mg</td>
</tr>
<tr>
<td>Aspartame in mucoadhesive form</td>
<td>7.00mg</td>
</tr>
<tr>
<td>(from step 1 of example 2)</td>
<td></td>
</tr>
<tr>
<td>Flavour</td>
<td>1.5mg</td>
</tr>
<tr>
<td>Sodium Starch Glycolate</td>
<td>3.0mg</td>
</tr>
<tr>
<td>Magnesium Stearate</td>
<td>4.0mg</td>
</tr>
</tbody>
</table>

Sift all the ingredients through 40 mesh sieve and blend. Compress into tablets at a hardness of 1 to 5kg.

**Example 4**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>%w/w</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cisapride(Drug/Pharmaceutical agent)</td>
<td>2.50</td>
</tr>
<tr>
<td>Liquid</td>
<td>0.25</td>
</tr>
<tr>
<td>Sorbitol</td>
<td>84.75</td>
</tr>
<tr>
<td>Sodium Starch Glycollate</td>
<td>5.00</td>
</tr>
<tr>
<td>Croscarmelllose Sodium</td>
<td>1.25</td>
</tr>
<tr>
<td>Magnesium Stearate</td>
<td>1.25</td>
</tr>
<tr>
<td>Aspartame in mucoadhesive form</td>
<td>3.00</td>
</tr>
<tr>
<td>(from step 1 of example 1)</td>
<td></td>
</tr>
<tr>
<td>Colloidal Silicon Dioxide</td>
<td>1.25</td>
</tr>
<tr>
<td>Flavour</td>
<td>0.75</td>
</tr>
</tbody>
</table>

Pass the drug through mesh no.60(BSS) sieve. Granulate the drug with a solution of Liquid Paraffin in Dichloromethane and pass through mesh no. 40(BSS) sieve. Dry at a temperature of 45-50°C. Sift Sorbitol through mesh no.60(BSS) sieve and mix with drug containing Liquid Paraffin. This blend is then granulated with water and then dried at a temperature of 50°-60°C. The dried granules are sifted through mesh no.22(BSS) sieve.
Sift Sodium Starch Glycollate, Magnesium Stearate, Colloidal Silicon Dioxide, Crosscarmellose Sodium, Aspartame (in mucoadhesive form) and Flavours through mesh No.30(BSS) sieve and mix the above said bulk. Compress into tablets using conventional tabletting machine at a hardness of 1-3 kg.

**Example 5**

<table>
<thead>
<tr>
<th>%w/w</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cetirizine Dihydrochloride</td>
</tr>
<tr>
<td>(Drug/Pharmaceutical agent)</td>
</tr>
<tr>
<td>Crosslinked Polyacrylic Acid (Ion-exchange resin)</td>
</tr>
<tr>
<td>Hydrochloric Acid</td>
</tr>
<tr>
<td>Mannitol</td>
</tr>
<tr>
<td>Croscarmellose Sodium</td>
</tr>
<tr>
<td>Povidone</td>
</tr>
<tr>
<td>Aspartame in mucoadhesive form (from step 1 of example 1)</td>
</tr>
<tr>
<td>Magnesium Stearate</td>
</tr>
<tr>
<td>Aerosil</td>
</tr>
<tr>
<td>Sodium Starch Glycollate</td>
</tr>
<tr>
<td>Sodium Chloride</td>
</tr>
<tr>
<td>Citric Acid</td>
</tr>
<tr>
<td>Flavour</td>
</tr>
</tbody>
</table>

Dissolve Cetirizine dihydrochloride in 20 times of its weight of water. Add Crosslinked Polyacrylic Acid in small increments with constant stirring. Adjust pH to 3 with hydrochloric acid. Keep aside for 1 to 6 hours and then decant the water. Wash the sediment with water at least twice. Dry the sediment at 40 to 50°C. Pass through sieve of mesh no 60 (BSS). Mix with pre-sifted (through mesh no.30BBS) blend of Mannitol, Croscarmellose Sodium, Povidone, Aspartame (in mucoadhesive form), Magnesium Stearate, Aerosil, Sodium Starch Glycollate, Sodium Chloride, Citric Acid and Flavour. Compress into tablets using conventional tabletting machine at a hardness of 1-3 kg.
Example 6

Step 1. Preparation of non-sugar in Mucoadhesive form:-

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saccharin Sodium</td>
<td>100.00g</td>
</tr>
<tr>
<td>Polycarbophil (Noveon AA-1)</td>
<td>4.00g</td>
</tr>
<tr>
<td>Water</td>
<td>10.00g</td>
</tr>
</tbody>
</table>

Disperse Polycarbophil in Water. Granulate Saccharin Sodium with this dispersion. Dry at 50°C and sift through mesh no 40(BSS).

Step 2

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>%w/w</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloroquine Phosphate (Drug/Pharmaceutical agent)</td>
<td>10.0</td>
</tr>
<tr>
<td>Crosslinked Polyacrylic Acid, Potassium salt</td>
<td>20.0</td>
</tr>
<tr>
<td>Hydrochloric Acid</td>
<td>q.s. to adjust pH</td>
</tr>
<tr>
<td>Mannitol</td>
<td>51.50</td>
</tr>
<tr>
<td>Croscarmellose Sodium</td>
<td>0.25</td>
</tr>
<tr>
<td>Povidone</td>
<td>6.25</td>
</tr>
<tr>
<td>Aspartame in mucoadhesive form</td>
<td></td>
</tr>
<tr>
<td>(from step 1 of example 1)</td>
<td></td>
</tr>
<tr>
<td>Magnesium Stearate</td>
<td>0.50</td>
</tr>
<tr>
<td>Sodium Starch Glycollate</td>
<td>3.75</td>
</tr>
<tr>
<td>Sodium Chloride</td>
<td>3.00</td>
</tr>
<tr>
<td>Citric Acid</td>
<td>2.00</td>
</tr>
<tr>
<td>Flavour</td>
<td>2.75</td>
</tr>
</tbody>
</table>

Dissolve Chloroquine Phosphate in 20 times of its weight of water. Add Crosslinked Polyacrylic Acid in small increments with constant stirring. Adjust pH to 6 with hydrochloric acid. Keep aside for 1 to 6 hours and hen decant the water. Wash the sediment with water atleast twice. Dry the sediment at 40° to 50°C. Pass through sieve of mesh no 60 (BSS). Mix with pre-sifted (through mesh no. 30 BSS) blend of Mannitol, Povidone, Saccharin Sodium (in mucoadhesive form), magnesium Stearate, Sodium
Starch Glycollate, Sodium Chloride, Citric Acid and Flavour. Compress into tablets using conventional tabletting machine at a hardness of 1-3kg.

Example 7

Step 1: Taste neutralization of drug substance.

Ascorbic Acid 96.00g
Gelatin 4.00g
Water 30.00ml

Heat water to about 60°C – 70°C. Add Gelatin and dissolve. Coat the Ascorbic Acid by spraying the gelatin solution using fluidized bed coater. Size the coated drug powder through 40 mesh sieve.

Step 2: Mucoadhesive Sweetener

Ammonium Glycyrhrizinate 20.00g
PVM/MA Copolymer 0.40g
(gantrez AN 169)
Acetone 20.00ml

Dissolve Gantrez AN 169 in 20 ml Acetone, Granulate Ammonium Glycyrhrizinate with this solution and dry at 40°C. Sift through 60 mesh sieve.

Step 3: Tablet Formulation

Ascorbic Acid from step 1
Equivalent to Ascorbic Acid 100.0mg
Sorbitol 204.5mg
Ammonium Glycyrhrizinate in Mucoadhesive form 7.00mg
(from step 2)
Flavour 1.5mg
Sodium Starch Glycolate 3.0mg
Magnesium Stearate 4.0mg
Sift all the ingredients through 40 mesh sieve and blend. Compress into tablets at a hardness of 1 to 5 kg.

**Example 8: Tablet Formulation**

- Interferon (Alpha) equivalent to 18 Million I.U.
- Mannitol 204.5mg
- Aspartame in mucoadhesive form 7.0mg
  (from step 1 of example 1)
- Flavour 1.5mg
- Sodium Starch Glycolate 3.0mg
- Magnesium Stearate 4.0mg

Sift all the ingredients through 40 mesh sieve and blend. Compress into tablets at a hardness of 1 to 3 kg.

**Example 9**

- Alprazolam 1mg
- Isomalt 98.9mg
- Aspartame 0.03mg
- Acesulfam 0.03mg
- Neohesperidin DC in 0.04mg
  Mucoadhesive form

Sift all the ingredients through 30 mesh sieve and blend. Compress into tablets at a hardness of 1 to 3 kg.

The advantages of the present invention are:

a) The pharmaceutical tablets prepared according to the present invention dissolve/disperse in the mouth within one minute requiring very little amount of body fluids like saliva to produce a solution or suspension of the drug for oral administration.
b) The tablet leaves a prolonged sweet taste in the mouth.

c) The un-pleasant or bitter taste of the drug is masked without significantly interfering the dissolution and ultimate bioavailability of the drug present of the tablet.

d) The process of this invention has low manufacturing cost avoiding the special and costly techniques like Lyophilization, Spray-drying and the like.

Since many apparently different embodiments of the present invention could be made without departing from the spirit and scope thereof, it is intended that the description of the invention herein be interpreted as being illustrative only and not limiting in any manner whatsoever.
We Claim:-

1. A novel fast dissolving pharmaceutical composition in solid dosage form with prolonged sweet taste which comprises.

   a) At least one pharmaceutical active agent such as herein described in an amount of from 0.1 to 99 weight%.

   b) At least one water soluble sugar, such as herein described, in an amount of from 5 to 95 weight % of the total dosage form.

   c) At least one non-sugar sweetner, such as herein described, in their normal fast release form in an amount of from 0 to 10 weight % of the total dosage form.

   d) At least one non-sugar sweetner, such as herein described, in a mucoadhesive slow release form obtained as herein described in an amount of from 0.5 to 20 weight % of the total dosage form.

2. A composition as claimed in claim 1 wherein the water soluble sugar is Mannitol, Sorbitol and/or Xylitol.

3. A composition as claimed in claim 2 wherein the non-sugar sweetner is Isomalt Aspartame, Acesulfame potassium, Saccharine Sodium, Cyclamates Neohespevidine and/or Glycyrhrizin.

4. A process for the preparation of a fast dissolving pharmaceutical composition in solid dosage form with prolonged sweet taste which comprises mixing the following ingredients:-

   a) At least one drug/pharmaceutically active agent such as herein described in an amount of from 0.1 to 99 weight %.
b) Atleast one water soluble sugar, such as herein described in an amount of from 5 to 99 weight % of the total dosage form.

c) Atleast one non-sugar sweetner, such as herein described, in their normal fast release form in an amount of from 0 to 99 weight % of the total dosage form.

d) Atleast one non-sugar sweetner, such as herein described in a mucoadhesive slow release form obtained as herein described in an amount of from 0.005 to 20 weight % of the total dosage form.

and compressing the resulting mixture obtained or any other solid dosage form.

5. A process as claimed in claim 4 wherein the water soluble sugar is Mannitol, Sorbitol and/or Xylitol.

6. A process as claimed in claim 4 and 5 wherein the non-sugar sweetner is Isomalt, Aspartame, Acesulfame potassium, Saccharine sodium, Cyclamates Neohesperidine and/or Glycirrhizin.

7. A process as claimed in claims 4 to 6 wherein conventional therapeutically acceptable additives like Binding agents, Lubricants, Disintegrants, Flavouring agents, Colouring agents, pH modifiers, and Wetting agent may be added to the pharmaceutical composition.

8. A novel fast dissolving pharmaceutical composition in solid dosage form with prolonged sweet taste substantially as herein described with reference to the foregoing description and the accompanying examples.

9. A process for the preparation of a novel fast dissolving pharmaceutical composition in solid dosage form with prolonged sweet taste substantially as herein described with reference to the foregoing description and the accompanying examples.