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Introduction

This study reviews the top 100 used pharmaceutical agents in the U.S. and lists their potential ocular side effects using the Physicians' Desk Reference (PDR). The gathered information is presented in a user-friendly format for clinical use. In addition, this study shows the most commonly prescribed medications at one Veteran Administration hospital and resulting ocular adverse reactions.

Methods

Utilizing the top 100 prescribed medications from Mosby's Drug Consult Top 200 list, ocular adverse reactions were obtained and listed using the PDR. The medications, along with FDA drug class(es) and ocular side effects, are listed alphabetically by common name (Table 2a) and by trade name (Table 2b). Another format categorizes the medications by side effects, listed alphabetically by common name (Table 3a) and by trade name (Table 3b).

Clinical data were obtained from the medical records of 100 patients in the Eye Clinic at Aleda Lutz VAMC in Saginaw, Michigan (Table 4). Thorough eye exams were performed and ocular side effects of systemic medications were noted by matching the patient's medications to the ocular side effects listed in the PDR. The data gathered were then matched with the top 100 prescribed medications and noted in Table 1.

Results

Of the 149 unique patient medications, 49 appear on the top 100 list. It was found that 6 medications (11 patients) had ocular side effects with 3 appearing on the top 100 list (see Table 1). Of 726 total prescriptions, 1.5% (11 of 726) produced ocular effects; and of the 149 unique patient medications, 4% (6 of 149) produced ocular effects.

Table 1

Medication	Ocular Side Effect	# of Patients with Side Effect/Total Patients on Med.	% of Patients on Medication
Amiodarone	Vortex Keratopathy	6/6	100
Aspirin*	Subconjunctival Hemorrhage	1/34	2.9
Captopril*	Photosensitivity	1/4	25
Chlorpromazine	Anterior Stellate Cataracts Endothelial Pigmentation Iris Hyperpigmentation	1/1	100
Doxepin*	Photosensitivity	1/1	100
Gabapentin	Mydriasis	1/5	20

*medications on top 100 list

Discussion

While many medications are known to have ocular side effects, the present study indicates that only 4% of unique medications produce ocular adverse reactions. Although 11% of patients showed ocular changes secondary to systemic medications, the sample is biased due to population, sample size, and total number of medications per patient (7.26 on average).

It is important to note that the ocular side effects revealed in the present study are not vision threatening. Although it is essential that the practitioner be aware of possible harmful ocular effects of medications, this study demonstrates their rare occurrence.

Table 2a

Drug Name	FDA Drug Class(es)	Ocular Side Effects
Acetaminophen; Codeine Phosphate (Tylenol W Codeine)	Analgesics, General; Analgesics-Narcotic; Analgesics-Non-Narcotic; Antitussives/Expectorants	Miosis
Acetaminophen; Hydrocodone Bitartrate (Lortab)	Analgesics, General; Analgesics-Narcotic; Antitussives/Expectorants	
Acetaminophen; Oxycodone HCl (Percocet)	Analgesics, General; Analgesics-Narcotic	
Acetaminophen; Propoxyphene Napsylate (Darvocet-N)	Analgesics, General	Minor Visual Disturbances
Acetaminophen; Butalbital; Caffeine; Codeine Phosphate (Fioricet W/Codeine)	Antimigraine	
Acyclovir (Zovirax)	Antifungals; Antivirals	Photosensitivity; Visual Disturbances; Stevens-Johnson Syndrome
Albuterol (Ventolin)	Antiasthmatics/Broncodilators	
Allopurinol (Zyloprim)	Antigout	
Alprazolam (Xanax)	Antianxiety; Sedatives/Hypnotics	Diplopia; Stevens-Johnson Syndrome; Blurred Vision
Amitriptyline Hydrochloride (Elavil)	Anorexiant/CNS Stimulants; Antidepressants	Impaired Accommodation; Increased IOP; Mydriasis; Photosensitivity; Blurred Vision
Amoxicillin (Amoxil)	Penicillins	Stevens-Johnson Syndrome
Aspirin (Zorprin)	Analgesics, General; Antiarthritics	
Atenolol (Tenormin)	Antianginals; Antihypertensives; Beta Blockers	Visual Disturbances; Xerophthalmia
Benzonate (Tessalon Perles)	Antitussives/Expectorants	Burning of Eyes; Hallucinations
Benztrapine Mesylate (Cogentin)	Anesthesia, Adjuncts To; Extrapyramidal Movement Disorders	Hallucinations; Blurred Vision; Mydriasis
Captopril (Capoten)	Ace Inhibitors; Antihypertensives	Ocular Angioedema; Photosensitivity; Blurred Vision; Stevens-Johnson Syndrome
Carbamazepine (Tegretol)	Anticonvulsants; Central Pain Syndromes	Conjunctivitis; Diplopia; Scattered Punctate Cortical Lens Opacities; Nystagmus; Oculomotor Disturbances; Stevens-Johnson Syndrome; Blurred Vision; Hallucinations
Carbinoxamine Maleate; Dextromethorphan Hydrobromide; Pseudoephedrine Hydrochloride (Rondec-Dm)	Antihistamines; Antitussives/Expectorants; Cold Remedies; Nasal Decongestants	Diplopia
Carisoprodol (Soma)	Skeletal Muscle Hyperactivity	
Cefaclor (Ceclor)	Cephalosporins	Stevens-Johnson Syndrome; Conjunctivitis
Cephalexin (Keflex)	Cephalosporins	Stevens-Johnson Syndrome
Clorazepate Dipotassium (Tranxene)	Antianxiety	Diplopia; Blurred Vision
Cimetidine Hydrochloride (Tagamet)	Disorders, Acid/Peptic	Stevens-Johnson Syndrome
Clindamycin Hydrochloride (Cleocin)	Macrolides	Stevens-Johnson Syndrome
Clonazepam (Klonopin)	Anticonvulsants	Diplopia; Abnormal Eye Movements; "Glassy-Eyed" Appearance; Nystagmus
Clonidine (Catapres-TTS)	Antihypertensives	Burning of Eyes; Hallucinations; Blurred Vision; Xerophthalmia
Cyclobenzaprine (Flexeril)	Skeletal Muscle Hyperactivity	Diplopia; Photosensitivity; Blurred Vision
Diazepam (Valium)	Adjuncts To; Antianxiety; Anticonvulsants; Skeletal Muscle Hyperactivity	Diplopia; Blurred Vision
Diclofenac Sodium (Voltaren)	General; Analgesics-Non-Narcotic; Antiarthritics; NSAID; Anti-Inflammatory	Diplopia; Dryness of Mucous Membranes; Photosensitivity; Stevens-Johnson Syndrome
Dicyclomine Hydrochloride (Bentyl)	Antispasmodics/Anticholinergics; Gastrointestinal, Miscellaneous	Blurred Vision; Diplopia; Mydriasis; Cycloplegia; Increased IOP
Digoxin (Lanoxin)	Antiarrhythmics; Cardiac Glycosides	Blurred Vision; Xanthopsia
Diphenhydramine Hydrochloride (Benadryl Parenteral)	Antihistamines; Antitussives /Expectorants; Movement Disorders	Photosensitivity; Blurred Vision; Diplopia

Drug Name	FDA Drug Class(es)	Ocular Side Effects
Doxepin Hydrochloride (Sinequan)	Antianxiety; Antidepressants; Dermatologics/Miscellaneous	Photosensitivity; Blurred Vision
Doxycycline (Vibramycin)	Tetracyclines	Photosensitivity
Erythromycin Ethylsuccinate (EES)	Macrolides; Ocular Anti-Infective	Stevens-Johnson Syndrome
Estradiol (Estraderm)	Estrogens	Contact Lens Intolerance; Steepening of Corneal Curvature
Etodolac (Lodine)	Analgesics, General; Antiarthritics; NSAID	Photophobia; Stevens-Johnson Syndrome; Blurred Vision
Fluocinonide (Lidex)	Corticosteroids; Antipuretics; Topical Steroids	
Folic Acid (Folvite)	Deficiency Anemias; Vitamins/Minerals	
Furosemide (Lasix)	Antihypertensives; Diuretics	Photosensitivity; Blurred Vision; Xanthopsia
Gemfibrozil (Lopid)	Hyperlipidemia	Blurred Vision
Gentamicin Sulfate (Garamycin)	Aminoglycosides; Ocular Anti-Infective; Otics, Topical; Topical Anti-Infectives	Conjunctival Epithelial Defects; Conjunctivitis; Burning Eyes; Hallucinations; Conjunctival Hyperemia; Corneal Ulcers
Glipizide (Glucotrol)	Blood Glucose Regulators	Blurred Vision
Glyburide (DiaBeta)	Blood Glucose Regulators	Blurred Vision; Impaired Accommodation
Guaifenesin; Phenylpropanolamine Hydrochloride (Entex LA)	Antitussives/Expectorants; Cold Remedies; Decongestants, Nasal	
Guaifenesin; Pseudoephedrine Hydrochloride (Deconasal)	Antitussives/Expectorants; Cold Remedies; Decongestants, Nasal	
Haloperidol (Haldol)	Antipsychotics/Antimanics	Oculogyric Crisis; Visual Disturbances; Blurred Vision; Cataracts; Retinopathy
Hydrochlorothiazide (Aldoril)	Antihypertensives; Diuretics	Stevens-Johnson Syndrome; Blurred Vision; Xanthopsia
Hydrocortisone (Nutracort)	Corticosteroids; Antiarthritics; Antiseptics/Disinfectants; Antipuretics; Gastrointestinal, Miscellaneous; Topical Steroids	
Hydroxychloroquine Sulfate (Plaquenil)	Antiarthritics; Antimalarials; Antiprotozoals	CB: Impaired Accommodation Cornea: Decreased Sensitivity; Edema; Punctate to Linear Opacities Macula: Edema; Atrophy; Loss of Foveal Reflex; Abnormal Pigmentation; Increased Photo-Stress Test Other Fundus Changes: Optic Disc Pallor and Atrophy; Attenuation of Arterioles; Pigment Disturbances in Periphery; Prominent Choroidal Patterns Visual Field Defects: Pericentral or Paracentral Scotoma, Central Scotoma w/ Decreased VA Other: Halos Around Objects; Nystagmus; EOM Paralysis; Photophobia
Hydroxyzine Hydrochloride (Atarax)	Antianxiety; Antihistamines; Antipruritics; Sedatives/Hypnotics	
Hyoscyamine Sulfate (Levsin)	Antispasmodics/Anticholinergics; Acid/Peptic, Disorders; Miscellaneous; Relaxants/Stimulants, Urinary Tract	Cycloplegia; Mydriasis; IOP increase; Blurred Vision

Drug Name	FDA Drug Class(es)	Ocular Side Effects
Ibuprofen (Motrin)	Analgesics, General; Analgesics-Non-Narcotic; Antiarthritics; Antigout; Antipyretics; NSAID	
Imipramine Hydrochloride (Tofranil)	Antidepressants	Blurred Vision; Glaucoma
Indapamide (Lozol)	Antihypertensives Diuretics	Photosensitivity; Xanthopsia; Steven-Johnson Syndrome; Conjunctivitis
Indomethacin (Indocin)	Antiarthritics; Antigout; NSAID	Retinitis; Blurred Vision; Corneal Deposits; Steven-Johnson Syndrome
Isosorbide Dinitrate (Isorem)	Antianginals	
Isosorbide Mononitrate (Ismo)	Antianginals; Coronary Vasodilators	
Levothyroxine Sodium (Synthroid)	Thyroid	
Lithium Carbonate (Eskalith)	Antipsychotics/Antimanics	Exophthalmos; Increased Intracranial Pressure with Papilledema; Nystagmus; Scotoma
Lorazepam (Ativan)	Antianxiety; Sedatives/ Hypnotics	Disorder of eyes
Meclizine Hydrochloride (Antivert)	Antihistamines; Vertigo/Motion Sickness/Vomiting	
Medroxyprogesterone Acetate (Provera)	Antineoplastics; Contraceptives; Progestins	Diplopia; Nero-Ocular and Retinal Vascular Lesions; Optic Neuritis; Papilledema
Methocarbamol (Robaxin)	Skeletal Muscle Hyperactivity	Blurred Vision; Conjunctivitis
Methotrexate Sodium (Rheumatrex)	Antiarthritics; Antimetabolites; Antineoplastics; Antipuretics	Visual Disturbances
Methylphenidate Hydrochloride (Ritalin)	Cns Stimulants; CNS, Miscellaneous	
Methylprednisolone (Medrol)	Corticosteroids; Antiarthritics	Glaucoma, increase IOP; Papilledema; Exophthalmos; PSC
Metoclopramide Hydrochloride (Reglan)	Antiemetics; Disorders, Acid/Peptic; Vertigo/Motion Sickness/Vomiting	Visual Disturbances
Metoprolol Tartrate (Lopressor)	Antianginals; Antihypertensives; Beta Blockers	Dry Eyes, Blurred Vision
Metronidazole (Flagyl)	Antibacterials, Miscellaneous; Antiprotozoals; Acid/Peptic; Gastrointestinal Miscellaneous; Personal Care Products (Vaginal)	
Minocycline Hydrochloride (Minocin)	Tetracycline	Photosensitive
Nadolol (Corgard)	Antianginals; Antihypertensives; Beta Blockers	Blurred Vision; Visual Disturbances; Xerophthalmia
Naproxen (Naprosyn)	Analgesics, General; Analgesics-Non-Narcotic; Antiarthritics; Antigout; NSAID	Steven-Johnson Syndrome; Visual Disturbances
Nitroglycerin (Transderm-Nitro)	Antianginals; Antihypertensives; Coronary Vasodilators; Homeopathic Products	
Nortriptyline Hydrochloride (Pamelor)	Antidepressants	
Nystatin (Mycostatin)	Antifungals	
Hydrocortisone; Neomycin Sulfate; Polymyxin B Sulfate (Cortisporin)	Antibacterials, Miscellaneous; Ocular Anti-Infective/Anti-Inflammatory; Otics, Topical; Vitamins/Minerals	
Oxybutynin Chloride (Ditropan)	Antispasmodics/Anticholinergics; Relaxants/Stimulants, Urinary Tract	Blurred Vision; Xerophthalmia
Penicillin V Potassium (V-Cillin K)	Penicillins	
Pentoxifylline (Trental)	Vascular Disorders, Cerebral /Peripheral	Conjunctivitis; Scotoma; Blurred Vision
Phenazopyridine Hydrochloride (Pyridium)	Antiseptics, Urinary Tract,	
Phenobarbital	Antianxiety; Anticonvulsants; Sedatives/Hypnotics	Increase IOP; Blurred Vision; Mydriasis
Phentermine Hydrochloride (Fastin)	Anorexiant	
Potassium Chloride (Slow-K)	Repl/Regs Of Electrolytes/Water Balance; Vitamins/Minerals	

Drug Name	FDA Drug Class(es)	Ocular Side Effects
Prednisone (Deltasone)	Corticosteroids; Antiarthritics; Antineoplastics; Ocular Anti-Inflammatory	
Prednisolone (Delta-Cortef)	Corticosteroids; Antiarthritics; Antineoplastics; Dermatologics; Ocular Anti-Inflammatory	Exophthalmos; Glaucoma, Increase IOP; Optic Nerve Damage; PSC
Prochlorperazine (Compazine)	Corticosteroids; Antiarthritics; Antineoplastics; Dermatologics; Ocular Anti-Inflammatory	Epithelial Keratopathy; Lenticular and Corneal Opacities; Pigmentary Retinopathy; Blurred Vision
Promethazine Hydrochloride (Phenergan)	Anesthesia, Adjuncts To; Antiemetics; Antihistamines; Antitussives/Expectorants; Sedatives/Hypnotics; Vertigo/Motion Sickness/Vomiting	Oculogyric Crises; Blurred Vision
Propranolol Hydrochloride (Inderal)	Antianginals; Antiarrhythmics; Antihypertensives; Antimigraine; Beta Blockers; Extrapyramidal Movement Disorders	Xerophthalmia; Visual Disturbances
Quinine Sulfate (Quinamm)	Antimalarials; Antiprotozoals; Skeletal Muscle Hyperactivity	Blurred Vision; Diplopia; Photophobia
Ranitidine Hydrochloride (Zantac)	Antihistamines; Acid/Peptic Disorders	Blurred Vision
Spirolactone (Aldactone)	Antihypertensives; Diuretics; Repl/Regs Of Electrolytes	
Sulfamethoxazole; Trimethoprim (Bactrim)	Sulfonamides Antimicrobials	Steven-Johnson Syndrome
Tamoxifen Citrate (Nolvadex)	Antineoplastics; Hormonal/Biological Response Modifiers	
Temazepam (Restoril)	Sedatives/Hypnotics	Blurred Vision
Theophylline (Elixophyllin)	Antiasthmatics	
Trazodone Hydrochloride (Desyrel)	Analgesics, General; Antianxiety; Antiarthritics; Antidepressants	Blurred Vision
Triamcinolone Acetonide (Kenalog)	Corticosteroids; Antiasthmatics; Corticosteroids-Inhalation/Nasal; Dental Preparations; Ocular Anti-Inflammatory; Sulfonamides/Related Compounds; Steroids	Conjunctivitis
Verapamil Hydrochloride (Calan)	Antianginals; Antiarrhythmics; Antiarthritics; Antihypertensives; Calcium Channel Blockers	Blurred Vision; Steven-Johnson Syndrome
Warfarin Sodium (Coumadin)	Anticoagulants	

Table 2b

Drug Name	FDA Drug Class(es)	Ocular Side Effects
Aldactone (Spironolactone)	Antihypertensives; Diuretics; Repl/Regs Of Electrolytes	
Aldoril (Hydrochlorothiazide)	Antihypertensives; Diuretics	Stevens-Johnson Syndrome; Blurred Vision; Xanthopsia
Amoxil (Amoxicillin)	Penicillins	Stevens-Johnson Syndrome
Antivert (Meclizine Hydrochloride)	Antihistamines; Vertigo/Motion Sickness/Vomiting	
Atarax (Hydroxyzine Hydrochloride)	Antianxiety; Antihistamines; Antipruritics; Sedatives/Hypnotics	
Ativan (Lorazepam)	Antianxiety; Sedatives/ Hypnotics	Disorder of eyes
Bactrim (Sulfamethoxazole; Trimethoprim)	Sulfonamides Antimicrobials	Steven-Johnson Syndrome
Benadryl Parenteral (Diphenhydramine Hydrochloride)	Antihistamines; Antitussives /Expectorants; Movement Disorders	Photosensitivity; Blurred Vision; Diplopia
Bentyl (Dicyclomine Hydrochloride)	Antispasmodics/Anticholinergics; Gastrointestinal, Miscellaneous	Blurred Vision; Diplopia; Mydriasis; Cycloplegia; Increased IOP
Calan (Verapamil Hydrochloride)	Antianginals; Antiarrhythmics; Antiarthritics; Antihypertensives; Calcium Channel Blockers	Blurred Vision; Steven-Johnson Syndrome
Capoten (Captopril)	Ace Inhibitors; Antihypertensives	Ocular Angioedema; Photosensitivity; Blurred Vision; Stevens-Johnson Syndrome
Catapres-TTS (Clonidine)	Antihypertensives	Burning of Eyes; Hallucinations; Blurred Vision; Xerophthalmia
Ceclor (Cefaclor)	Cephalosporins	Stevens-Johnson Syndrome; Conjunctivitis
Cleocin (Clindamycin Hydrochloride)	Macrolides	Stevens-Johnson Syndrome
Cogentin (Benztropine Mesylate)	Anesthesia, Adjuncts To; Extrapyramidal Movement Disorders	Hallucinations; Blurred Vision; Mydriasis
Compazine (Prochlorperazine)	Corticosteroids; Antiarthritics; Antineoplastics; Dermatologics; Ocular Anti-Inflammatory	Epithelial Keratopathy; Lenticular and Corneal Opacities; Pigmentary Retinopathy; Blurred Vision
Corgard (Nadolol)	Antianginals; Antihypertensives; Beta Blockers	Blurred Vision; Visual Disturbances; Xerophthalmia
Cortisporin (Hydrocortisone; Neomycin Sulfate; Polymyxin B Sulfate)	Antibacterials, Miscellaneous; Ocular Anti-Infective/Anti-Inflammatory; Otics, Topical; Vitamins/Minerals	
Coumadin (Warfarin Sodium)	Anticoagulants	
Darvocet-N (Acetaminophen; Propoxyphene Napsylate)	Analgesics, General	Minor Visual Disturbances
Deconasal (Guaifenesin; Pseudoephedrine Hydrochloride)	Antitussives/Expectorants; Cold Remedies; Decongestants, Nasal	
Delta-Cortef (Prednisolone)	Corticosteroids; Antiarthritics; Antineoplastics; Dermatologics; Ocular Anti-Inflammatory	Exophthalmos; Glaucoma, Increase IOP; Optic Nerve Damage; PSC
Deltasone (Prednisone)	Corticosteroids; Antiarthritics; Antineoplastics; Ocular Anti-Inflammatory	
Desyrel (Trazodone Hydrochloride)	Analgesics, General; Antianxiety; Antiarthritics; Antidepressants	Blurred Vision
DiaBeta (Glyburide)	Blood Glucose Regulators	Blurred Vision; Impaired Accommodation
Ditropan (Oxybutynin Chloride)	Antispasmodics/Anticholinergics; Relaxants/Stimulants, Urinary Tract	Blurred Vision; Xerophthalmia
EES (Erythromycin Ethylsuccinate)	Macrolides; Ocular Anti-Infective	Stevens-Johnson Syndrome
Elavil (Amitriptyline Hydrochloride)	Anorexiant/CNS Stimulants; Antidepressants	Impaired Accommodation; Increased IOP; Mydriasis; Photosensitivity; Blurred Vision
Elixophyllin (Theophylline)	Antiasthmatics	
Entex LA (Guaifenesin; Phenylpropanolamine Hydrochloride)	Antitussives/Expectorants; Cold Remedies; Decongestants, Nasal	
Eskalith (Lithium Carbonate)	Antipsychotics/Antimanics	Exophthalmos; Increased Intracranial Pressure with Papilledema; Nystagmus; Scotoma

Drug Name	FDA Drug Class(es)	Ocular Side Effects
Estraderm (Estradiol)	Estrogens	Contact Lens Intolerance; Steepening of Corneal Curvature
Fastin (Phentermine Hydrochloride)	Anorexiant	
Fioricet W/Codeine (Acetaminophen; Butalbital; Caffeine; Codeine Phosphate)	Antimigraine	
Flagyl (Metronidazole)	Antibacterials, Miscellaneous; Antiprotozoals; Acid/Peptic; Gastrointestinal Miscellaneous; Personal Care Products (Vaginal)	
Flexeril (Cyclobenzaprine)	Skeletal Muscle Hyperactivity	Diplopia; Photosensitivity; Blurred Vision
Folvite (Folic Acid)	Deficiency Anemias; Vitamins/Minerals	
Garamycin (Gentamicin Sulfate)	Aminoglycosides; Ocular Anti-Infective; Otics, Topical; Topical Anti-Infectives	Conjunctival Epithelial Defects; Conjunctivitis; Burning Eyes; Hallucinations; Conjunctival Hyperemia; Corneal Ulcers
Glucotrol (Glipizide)	Blood Glucose Regulators	Blurred Vision
Haldol (Haloperidol)	Antipsychotics/Antimanics	Oculogyric Crisis; Visual Disturbances; Blurred Vision; Cataracts; Retinopathy
Inderal (Propranolol Hydrochloride)	Antianginals; Antiarrhythmics; Antihypertensives; Antimigraine; Beta Blockers; Extrapyramidal Movement Disorders	Xerophthalmia; Visual Disturbances
Indocin (Indomethacin)	Antiarthritics; Antigout; NSAID	Retinitis; Blurred Vision; Corneal Deposits; Steven-Johnson Syndrome
Ismo (Isosorbide Mononitrate)	Antianginals; Coronary Vasodilators	
Isorem (Isosorbide Dinitrate)	Antianginals	
Keflex (Cephalexin)	Cephalosporins	Stevens-Johnson Syndrome
Kenalog (Triamcinolone Acetonide)	Corticosteroids; Antiasthmatics; Corticosteroids-Inhalation/Nasal; Dental Preparations; Ocular Anti-Inflammatory; Sulfonamides/Related Compounds; Steroids	Conjunctivitis
Klonopin (Clonazepam)	Anticonvulsants	Diplopia; Abnormal Eye Movements; "Glassy-Eyed" Appearance; Nystagmus
Lanoxin (Digoxin)	Antiarrhythmics; Cardiac Glycosides	Blurred Vision; Xanthopsia
Lasix (Furosemide)	Antihypertensives; Diuretics	Photosensitivity; Blurred Vision; Xanthopsia
Levsin (Hyoscyamine Sulfate)	Antispasmodics/Anticholinergics; Acid/Peptic, Disorders; Miscellaneous; Relaxants/Stimulants, Urinary Tract	Cycloplegia; Mydriasis; IOP increase; Blurred Vision
Lidex (Fluocinonide)	Corticosteroids; Antipruritics; Topical Steroids	
Lodine (Etodolac)	Analgesics, General; Antiarthritics; NSAID	Photophobia; Stevens-Johnson Syndrome; Blurred Vision
Lopid (Gemfibrozil)	Hyperlipidemia	Blurred Vision
Lopressor (Metoprolol Tartrate)	Antianginals; Antihypertensives; Beta Blockers	Dry Eyes, Blurred Vision
Lortab (Acetaminophen; Hydrocodone Bitartrate)	Analgesics, General; Analgesics-Narcotic; Antitussives/Expectorants	
Lozol (Indapamide)	Antihypertensives Diuretics	Photosensitivity; Xanthopsia; Steven-Johnson Syndrome; Conjunctivitis
Medrol (Methylprednisolone)	Corticosteroids; Antiarthritics	Glaucoma, increase IOP; Papilledema; Exophthalmos; PSC
Minocin (Minocycline Hydrochloride)	Tetracycline	Photosensitive
Motrin (Ibuprofen)	Analgesics, General; Analgesics-Non-Narcotic; Antiarthritics; Antigout; Antipyretics; NSAID	
Mycostatin (Nystatin)	Antifungals	
Naprosyn (Naproxen)	Analgesics, General; Analgesics-Non-Narcotic; Antiarthritics; Antigout; NSAID	Steven-Johnson Syndrome; Visual Disturbances

Drug Name	FDA Drug Class(es)	Ocular Side Effects
Nolvadex (Tamoxifen Citrate)	Antineoplastics; Hormonal/Biological Response Modifiers	
Nutracort (Hydrocortisone)	Corticosteroids; Antiarthritics; Antiseptics/Disinfectants; Antipuretics; Gastrointestinal, Miscellaneous; Topical Steroids	
Pamelor (Nortriptyline Hydrochloride)	Antidepressants	
Percocet (Acetaminophen; Oxycodone HCl)	Analgesics, General; Analgesics-Narcotic	
Phenergan (Promethazine Hydrochloride)	Anesthesia, Adjuncts To; Antiemetics; Antihistamines; Antitussives/Expectorants; Sedatives/Hypnotics; Vertigo/Motion Sickness/Vomiting	Oculogyric Crises; Blurred Vision
Phenobarbital	Antianxiety; Anticonvulsants; Sedatives/Hypnotics	Increase IOP; Blurred Vision; Mydriasis
Plaquenil (Hydroxychloroquine Sulfate)	Antiarthritics; Antimalarials; Antiprotozoals	CB: Impaired Accommodation Cornea: Decreased Sensitivity; Edema; Punctate to Linear Opacities Macula: Edema; Atrophy; Loss of Foveal Reflex; Abnormal Pigmentation; Increased Photo-Stress Test Other Fundus Changes: Optic Disc Pallor and Atrophy; Attenuation of Arterioles; Pigment Disturbances in Periphery; Prominent Choroidal Patterns Visual Field Defects: Pericentral or Paracentral Scotoma, Central Scotoma w/ Decreased VA Other: Halos Around Objects; Nystagmus; EOM Paralysis; Photophobia
Provera (Medroxyprogesterone Acetate)	Antineoplastics; Contraceptives; Progestins	Diplopia; Nero-Ocular and Retinal Vascular Lesions; Optic Neuritis; Papilledema
Pyridium (Phenazopyridine Hydrochloride)	Antiseptics, Urinary Tract,	
Quinamm (Quinine Sulfate)	Antimalarials; Antiprotozoals; Skeletal Muscle Hyperactivity	Blurred Vision; Diplopia; Photophobia
Reglan (Metoclopramide Hydrochloride)	Antiemetics; Disorders, Acid/Peptic; Vertigo/Motion Sickness/Vomiting	Visual Disturbances
Restoril (Temazepam)	Sedatives/Hypnotics	Blurred Vision
Rheumatrex (Methotrexate Sodium)	Antiarthritics; Antimetabolites; Antineoplastics; Antipuretics	Visual Disturbances
Ritalin (Methylphenidate Hydrochloride)	Cns Stimulants; CNS, Miscellaneous	
Robaxin (Methocarbamol)	Skeletal Muscle Hyperactivity	Blurred Vision; Conjunctivitis
Rondec-Dm (Carbinoxamine Maleate; Dextromethorphan Hydrobromide; Pseudoephedrine Hydrochloride)	Antihistamines; Antitussives/Expectorants; Cold Remedies; Nasal Decongestants	Diplopia
Sinequan (Doxepin Hydrochloride)	Antianxiety; Antidepressants; Dermatologics/Miscellaneous	Photosensitivity; Blurred Vision
Slow-K (Potassium Chloride)	Repl/Regs Of Electrolytes/Water Balance; Vitamins/Minerals	
Soma (Carisoprodol)	Skeletal Muscle Hyperactivity	
Synthroid (Levothyroxine Sodium)	Thyroid	
Tagamet (Cimetidine Hydrochloride)	Disorders, Acid/Peptic	Stevens-Johnson Syndrome
Tegretol (Carbamazepine)	Anticonvulsants; Central Pain Syndromes	Conjunctivitis; Diplopia; Scattered Punctate Cortical Lens Opacities; Nystagmus; Oculomotor Disturbances; Stevens-Johnson Syndrome; Blurred Vision; Hallucinations
Tenormin (Atenolol)	Antianginals; Antihypertensives; Beta Blockers	Visual Disturbances; Xerophthalmia

Drug Name	FDA Drug Class(es)	Ocular Side Effects
Tessalon Perles (Benzonatate)	Antitussives/Expectorants	Burning of Eyes; Hallucinations
Tofranil (Imipramine Hydrochloride)	Antidepressants	Blurred Vision; Glaucoma
Transderm-Nitro (Nitroglycerin)	Antianginals; Antihypertensives; Coronary Vasodilators; Homeopathic Products	
Tranxene (Clorazepate Dipotassium)	Antianxiety	Diplopia; Blurred Vision
Trental (Pentoxifylline)	Vascular Disorders, Cerebral /Peripheral	Conjunctivitis; Scotoma; Blurred Vision
Tylenol W Codeine (Acetaminophen; Codeine Phosphate)	Analgesics, General; Analgesics-Narcotic; Analgesics-Non-Narcotic; Antitussives/Expectorants	Miosis
Valium (Diazepam)	Adjuncts To; Antianxiety; Anticonvulsants; Skeletal Muscle Hyperactivity	Diplopia; Blurred Vision
V-Cillin K (Penicillin V Potassium)	Penicillins	
Ventolin (Albuterol)	Antiasthmatics/Broncodilators	
Vibramycin (Doxycycline)	Tetracyclines	Photosensitivity
Voltaren (Diclofenac Sodium)	General; Analgesics-Non-Narcotic; Antiarthritics; NSAID; Anti-Inflammatory	Diplopia; Dryness of Mucous Membranes; Photosensitivity; Stevens-Johnson Syndrome
Xanax (Alprazolam)	Antianxiety; Sedatives/Hypnotics	Diplopia; Stevens-Johnson Syndrome; Blurred Vision
Zantac (Ranitidine Hydrochloride)	Antihistamines; Acid/Peptic Disorders	Blurred Vision
Zorprin (Aspirin)	Analgesics, General; Antiarthritics	
Zovirax (Acyclovir)	Antifungals; Antivirals	Photosensitivity; Visual Disturbances; Stevens-Johnson Syndrome
Zyloprim (Allopurinol)	Antigout	

Table 3a

Blurred Vision

Alprazolam (Xanax)
Amitriptyline Hydrochloride (Elavil)
Benzotropine Mesylate (Cogentin)
Captopril (Capoten)
Carbamazepine (Tegretol)
Clorazepate Dipotassium (Tranxene)
Clonidine (Catapres-TTS)
Diazepam (Valium)
Dicyclomine HCL (Bentyl)
Digoxin (Lanoxin)
Diphenhydramine HCL (Benadryl)
Doxepin HCL (Sinequan)
Etodolac (Lodine)
Furosemide (Lasix)
Gemfibrozil (Lopid)
Glipizide (Glucotrol)
Glyburide (DiaBeta)
Haloperidol (Haldol)
Hydrochlorothiazide (Aldoril)
Hydroxychloroquine Sulfate (Plaquenil)
Hyoscyamine Sulfate (Levsin)
Imipramine HCL (Tofranil)
Indomethacin (Indocin)
Methocarbamol (Robaxin)
Metoprolol Tartrate (Lopressor)
Nadolol (Corgard)
Oxybutynin Chloride (Ditropan)
Pentoxifylline (Trental)
Phenobarbital
Prochlorperazine (Compazine)
Promethazine Hydrochloride (Phenergan)
Quinine Sulfate (Quinamm)
Ranitidine HCL (Zantac)
Temazepam (Restoril)
Trazodone HCL (Desyrel)
Verapamil HCL (Calan)

Burning Eyes

Benzonatate (Tessalon Perles)
Clonidine (Catapres-TTS)
Gentamicin Sulfate (Garamycin)

Conjunctivitis

Carbamazepine (Tegretol)
Cefaclor (Ceclor)
Gentamicin Sulfate (Garamycin)
Indapamide (Lozol)
Methocarbamol (Robaxin)
Pentoxifylline (Trental)
Triamcinolone Acetonide (Kenalog)

Conjunctival Epithelial Defect

Gentamicin Sulfate (Garamycin)

Contact Lens Intolerance

Estradiol (Estraderm)

Corneal Edema

Hydroxychloroquine Sulfate (Plaquenil)

Corneal Deposits

Indomethacin (Indocin)

Corneal Opacity

Hydroxychloroquine Sulfate (Plaquenil)
Prochlorperazine (Compazine)

Corneal Ulcer

Gentamicin Sulfate (Garamycin)

Cycloplegia

Dicyclomine Hydrochloride (Bentyl)
Hydroxychloroquine Sulfate (Plaquenil)

Decreased Corneal Sensitivity

Cyclobenzaprine (Flexeril)
Hydroxychloroquine Sulfate (Plaquenil)

Diplopia

Alprazolam (Xanax)
Carbamazepine (Tegretol)
Carbinoxamine Maleate (Rondec-DM)
Clonazepam (Klonopin)
Cyclobenzaprine (Flexeril)
Diazepam (Valium)
Diclofenac Sodium (Voltaren)
Dicyclomine HCL (Bentyl)
Diphenhydramine HCL (Benadryl Parenteral)
Hydroxychloroquine Sulfate (Plaquenil)
Medroxyprogesterone Acetate (Provera)
Quinine Sulfate (Quinamm)

Dry Eyes

Atenolol (Tenormin)
Clonidine (Catapres-TTS)
Diclofenac Sodium (Voltaren)
Metoprolol Tartrate (Lopressor)
Nadolol (Corgard)
Oxybutynin Chloride (Ditropan)
Propranolol HCL (Inderal)

EOM Paralysis

Hydroxychloroquine Sulfate (Plaquenil)

Epithelial Keratopathy

Prochlorperazine (Compazine)

Exophthalmos

Lithium Carbonate (Eskalith)
Methylprednisolone (Medrol)
Prednisolone (Delta-Cortef)

Glassy Eyed Appearance

Clonazepam (Klonopin)

Glaucoma

Imipramine HCL (Tofranil)

Halos Around Objects

Hydroxychloroquine Sulfate (Plaquenil)

Impaired Accommodation

Amitriptyline HCL (Elavil)
Glyburide (DiaBeta)
Hydroxychloroquine Sulfate (Plaquenil)

Increased IOP

Amitriptyline HCL (Elavil)
Hyoscyamine Sulfate (Levsin)
Dicyclomine HCL (Bentyl)
Methylprednisolone (Medrol)
Phenobarbital
Prednisolone (Delta-Cortef)

Lens

Cataract

Haloperidol (Haldol)
PSC
Methylprednisolone (Medrol)
Prednisolone (Delta-Cortef)
Lenticular Opacity
Carbamazepine (Tegretol)
Prochlorperazine (Compazine)

Mydriasis

Amitriptyline HCL (Elavil)
Benzotropine Mesylate (Cogentin)
Dicyclomine HCL (Bentyl)
Hyoscyamine Sulfate (Levsin)
Phenobarbital

Miosis

Tylenol with Codeine

Nystagmus

Carbamazepine (Tegretol)
Clonazepam (Klonopin)
Hydroxychloroquine Sulfate (Plaquenil)
Lithium Carbonate (Eskalith)

Ocular Angioedema

Captopril (Capoten)

Oculogyric Crisis

Haloperidol (Haldol)
Promethazine Hydrochloride (Phenergan)

Oculomotor Disturbances

Carbamazepine (Tegretol)
Clonazepam (Klonopin)
Hydroxychloroquine Sulfate (Plaquenil)

Optic Nerve Damage

Prednisolone (Delta-Cortef)

Optic Neuritis

Medroxyprogesterone Acetate (Provera)

Papilledema

Lithium Carbonate (Eskalith)
Medroxyprogesterone Acetate (Provera)
Methylprednisolone (Medrol)

Photosensitivity

Acyclovir (Zovirax)
Amitriptyline HCL
Captopril (Capoten)
Cyclobenzaprine (Flexeril)
Diclofenac Sodium (Voltaren)
Diphenhydramine HCL (Benadryl)
Doxepin HCL (Sinequan)
Doxycycline (Vibramycin)
Etodolac (Lodine)
Hydroxychloroquine Sulfate (Plaquenil)
Indapamide (Lozol)
Minocycline Hydrochloride (Minocin)
Quinine Sulfate (Quinamm)

Retinopathy

Haloperidol (Haldol)
Hydroxychloroquine Sulfate (Plaquenil)
Prochlorperazine (Compazine)

Retinitis

Indomethacin (Indocin)

Retinal Vascular Lesions

Medroxyprogesterone Acetate (Provera)

Scotoma

Hydroxychloroquine Sulfate (Plaquenil)
Lithium Carbonate (Eskalith)
Pentoxifylline (Trental)

Steven-Johnson Syndrome

Acyclovir (Zovirax)
Alprazolam (Xanax)
Amoxicillin (Amoxil)
Captopril (Capoten)
Carbamazepine (Tegretol)
Cefaclor (Ceclor)
Cephalexin (Keflex)
Cimetidine HCL (Tagamet)
Clindamycin HCL (Cleocin)
Diclofenac Sodium (Voltaren)
Erythromycin Ethylsuccinate (EES)
Etodolac (Lodine)
Hydrochlorothiazide (Aldoril)
Indapamide (Lozol)
Indomethacin (Indocin)
Naproxen (Naprosyn)
Sulfamethoxazole; Trimethoprim (Bactrim)
Verapamil HCL (Calan)

Visual Disturbances

Acetaminophen (Darvocet-N)
Acyclovir (Zovirax)
Atenolol (Tenormin)
Haloperidol (Haldol)
Lorazepam (Ativan)
Methotrexate Sodium (Rheumatrex)
Metoclopramide HCL (Reglan)
Nadolol (Corgard)
Naproxen (Naprosyn)
Propranolol HCL (Inderal)

Visual Hallucinations

Benzonatate (Tessalon Perles)
Benztropine Mesylate (Cogentin)
Carbamazepine (Tegretol)
Clonidine (Catapres-TTS)
Gentamicin Sulfate (Garamycin)

Xanthopsia

Digoxin (Lanoxin)
Furosemide (Lasix)
Hydrochlorothiazide (Aldoril)
Indapamide (Lozol)

Table 3b**Blurred Vision**

Aldoril (Hydrochlorothiazide)
 Benadryl (Diphenhydramine HCL)
 Bentlyl (Dicyclomine HCL)
 Calan (Verapamil HCL)
 Capoten (Captopril)
 Catapres-TTS (Clonidine)
 Cogentin (Benzotropine Mesylate)
 Compazine (Prochlorperazine)
 Corgard (Nadolol)
 Desyrel (Trazodone HCL)
 DiaBeta (Glyburide)
 Ditropan (Oxybutynin Chloride)
 Elavil (Amitriptyline Hydrochloride)
 Glucotrol (Glipizide)
 Haldol (Haloperidol)
 Indocin (Indomethacin)
 Lanoxin (Digoxin)
 Lasix (Furosemide)
 Levsin (Hyoscyamine Sulfate)
 Lodine (Etodolac)
 Lopid (Gemfibrozil)
 Lopressor (Metoprolol Tartrate)
 Phenergan (Promethazine Hydrochloride)
 Phenobarbital
 Plaquenil (Hydroxychloroquine Sulfate)
 Quinamm (Quinine Sulfate)
 Restoril (Temazepam)
 Robaxin (Methocarbamol)
 Sinequan (Doxepin HCL)
 Tegretol (Carbamazepine)
 Tofranil (Imipramine HCL)
 Tranxene (Clorazepate Dipotassium)
 Trental (Pentoxifylline)
 Valium (Diazepam)
 Xanax (Alprazolam)
 Zantac (Ranitidine HCL)

Burning Eyes

Catapres-TTS (Clonidine)
 Garamycin (Gentamicin Sulfate)
 Tessalon Perles (Benzonatate)

Conjunctivitis

Ceclor (Cefaclor)
 Garamycin (Gentamicin Sulfate)
 Kenalog (Triamcinolone Acetonide)
 Lozol (Indapamide)
 Robaxin (Methocarbamol)
 Tegretol (Carbamazepine)
 Trental (Pentoxifylline)

Conjunctival Epithelial Defect

Garamycin (Gentamicin Sulfate)

Contact Lens Intolerance

Estraderm (Estradiol)

Corneal Edema

Plaquenil (Hydroxychloroquine Sulfate)

Corneal Deposits

Indomethacin (Indocin)

Corneal Opacity

Compazine (Prochlorperazine)
 Plaquenil (Hydroxychloroquine Sulfate)

Corneal Ulcer

Garamycin (Gentamicin Sulfate)

Cycloplegia

Bentlyl (Dicyclomine Hydrochloride)
 Plaquenil (Hydroxychloroquine Sulfate)

Decreased Corneal Sensitivity

Flexeril (Cyclobenzaprine)
 Plaquenil (Hydroxychloroquine Sulfate)

Diplopia

Benadryl Parenteral (Diphenhydramine HCL)
 Bentlyl (Dicyclomine HCL)
 Flexeril (Cyclobenzaprine)
 Klonopin (Clonazepam)
 Plaquenil (Hydroxychloroquine Sulfate)
 Provera (Medroxyprogesterone Acetate)
 Quinamm (Quinine Sulfate)
 Rondec-D (Carbinoxamine Maleate)
 Tegretol (Carbamazepine)
 Valium (Diazepam)
 Voltaren (Diclofenac Sodium)
 Xanax (Alprazolam)

Dry Eyes

Catapres-TTS (Clonidine)
 Corgard (Nadolol)
 Ditropan (Oxybutynin Chloride)
 Inderal (Propranolol HCL)
 Lopressor (Metoprolol Tartrate)
 Tenormin (Atenolol)
 Voltaren (Diclofenac Sodium)

EOM Paralysis

Plaquenil (Hydroxychloroquine Sulfate)

Epithelial Keratopathy

Compazine (Prochlorperazine)

Exophthalmos

Delta-Cortef (Prednisolone)
 Eskalith (Lithium Carbonate)
 Medrol (Methylprednisolone)

Glassy Eyed Appearance

Klonopin (Clonazepam)

Glaucoma

Tofranil (Imipramine HCL)

Halos Around Objects

Plaquenil (Hydroxychloroquine Sulfate)

Impaired Accommodation

DiaBeta (Glyburide)
 Elavil (Amitriptyline HCL)
 Plaquenil (Hydroxychloroquine Sulfate)

Increased IOP

Bentlyl (Dicyclomine HCL)
 Delta-Cortef (Prednisolone)
 Elavil (Amitriptyline HCL)
 Levsin (Hyoscyamine Sulfate)
 Medrol (Methylprednisolone)
 Phenobarbital

Lens**Cataract**

Haldol (Haloperidol)
 PSC
 Delta-Cortef (Prednisolone)
 Medrol (Methylprednisolone)
Lenticular Opacity
 Compazine (Prochlorperazine)
 Tegretol (Carbamazepine)

Mydriasis

Elavil (Amitriptyline HCL)
 Cogentin (Benzotropine Mesylate)
 Bentlyl (Dicyclomine HCL)
 Levsin (Hyoscyamine Sulfate)
 Phenobarbital

Miosis

Tylenol with Codeine

Nystagmus

Eskalith (Lithium Carbonate)
 Klonopin (Clonazepam)
 Plaquenil (Hydroxychloroquine Sulfate)
 Tegretol (Carbamazepine)

Ocular Angioedema

Capoten (Captopril)

Oculogyric Crisis

Haldol (Haloperidol)
 Phenergan (Promethazine Hydrochloride)

Oculomotor Disturbances

Klonopin (Clonazepam)
 Plaquenil (Hydroxychloroquine Sulfate)
 Tegretol (Carbamazepine)

Optic Nerve Damage

Delta-Cortef (Prednisolone)

Optic Neuritis

Provera (Medroxyprogesterone Acetate)

Papilledema

Eskalith (Lithium Carbonate)
 Medrol (Methylprednisolone)
 Provera (Medroxyprogesterone Acetate)

Photosensitivity

Benadryl (Diphenhydramine HCL)
Capoten (Captopril)
Elavil (Amitriptyline Hydrochloride)
Flexeril (Cyclobenzaprine)
Lodine (Etodolac)
Lozol (Indapamide)
Minocin (Minocycline Hydrochloride)
Plaquenil (Hydroxychloroquine Sulfate)
Quinamm (Quinine Sulfate)
Sinequan (Doxepin HCL)
Vibramycin (Doxycycline)
Voltaren (Diclofenac Sodium)
Zovirax (Acyclovir)

Retinopathy

Compazine (Prochlorperazine)
Haldol (Haloperidol)
Plaquenil (Hydroxychloroquine Sulfate)

Retinitis

Indocin (Indomethacin)

Retinal Vascular Lesions

Provera (Medroxyprogesterone Acetate)

Scotoma

Eskalith (Lithium Carbonate)
Plaquenil (Hydroxychloroquine Sulfate)
Trental (Pentoxifylline)

Steven-Johnson Syndrome

Aldoril (Hydrochlorothiazide)
Amoxil (Amoxicillin)
Bactrim (Sulfamethoxazole; Trimethoprim)
Calan (Verapamil HCL)
Capoten (Captopril)
Ceclor (Cefaclor)
Cleocin (Clindamycin HCL)
EES (Erythromycin Ethylsuccinate)
Indocin (Indomethacin)
Keflex (Cephalexin)
Lodine (Etodolac)
Lozol (Indapamide)
Naprosyn (Naproxen)
Tagamet (Cimetidine HCL)
Tegretol (Carbamazepine)
Voltaren (Diclofenac Sodium)
Xanax (Alprazolam)
Zovirax (Acyclovir)

Visual Disturbances

Ativan (Lorazepam)
Corgard (Nadolol)
Darvocet-N (Acetaminophen)
Haldol (Haloperidol)
Inderal (Propranolol HCL)
Naprosyn (Naproxen)
Reglan (Metoclopramide HCL)
Rheumatrex (Methotrexate Sodium)
Tenormin (Atenolol)
Zovirax (Acyclovir)

Visual Hallucinations

Catapres-TTS (Clonidine)
Cogentin (Benztropine Mesylate)
Garamycin (Gentamicin Sulfate)
Tegretol (Carbamazepine)
Tessalon Perles (Benzonatate)

Xanthopsia

Aldoril (Hydrochlorothiazide)
Lanoxin (Digoxin)
Lasix (Furosemide)
Lozol (Indapamide)

Table 4

VA Hospital Patient Medications	# of Pts.				
		FEXOFENADINE	9	LUBRICATING (PF) OPH OINT	4
ACETAMINOPHEN*	10	FINASTERIDE	5	METFORMIN	21
ACORBIC ACID	1	FLUDROCORTISONE ACETATE	1	METHOCARBAMOL*	1
ACYCLOVIR*	1	FLUOXETINE	3	METOCLOPRAMIDE HCL*	1
ALLOPURINOL*	5	FLUTAMIDE	2	METOPROLOL*	14
ALPRAZOLAM*	1	FLUTICASONE	15	MICONAZOLE	1
AMANTADINE	1	FLUVOXAMINE MALEATE	1	NABUMETONE	1
AMIODARONE	6	FOLIC ACID*	2	NAPROXEN*	7
AMITRIPTYLINE*	4	FOSINOPRIL	6	NEFAZODONE	1
AMLODIPINE BESYLATE	5	FUROSEMIDE*	28	NIACIN	2
AMOXICILLIN*	2	GABAPENTIN	5	NICOTINE 21MG/24HR PATCH	1
ARTIFICIAL TEARS POLYVINYL ALCOHOL	9	GALANTAMINE	1	NITROGLYCERIN*	17
ASPIRIN*	34	GEMFIBROZIL*	5	OLANZAPINE	1
ATORVASTATIN	3	GLIPIZIDE*	8	OXCARBAZEPINE	1
AZITHROMYCIN	1	GLYBURIDE*	14	OXYBUTYNYN CL*	2
BACLOFEN	2	GOSERELIN ACETATE	1	OXYCODONE	1
BECLOMETHASONE	3	GUAIFENESIN*	4	PAROXETINE HCL	1
BUPROPRIONE	2	HCTZ/TRIAMTERENE*	7	PENTAMIDINE	1
BUSPIRONE	2	HYDROCHLOROTHIAZIDE*	6	PHENYTOIN	1
CALCIUM ACETATE	2	HYDROCODONE	2	PIROXICAM	1
CALCIUM CARBON/VIT D	1	HYDROCORTISONE*	1	POTASSIUM CHLORIDE*	17
CAPTOPRIL*	4	HYDROXYUREA	1	PRazosin	7
CARBAMAZEPINE*	2	HYDROXYZINE*	3	PROCAINAMIDE	1
CARBIDOPA 50/LEVODOPA 200MG	4	IBUPROFEN*	14	PROPOXYPHENE	11
CHLORDIAZEPOXIDE	1	IMIPRAMINE HCL*	1	PROPRANOLOL*	1
CHLORPROMAZINE	1	INDAPAMIDE*	2	PSEUDOEPHEDRINE	2
CILOSTAZOL	1	INDOMETHACIN*	2	QUININE*	6
CIPROFLOXACIN	1	INSULIN LENTE HUMAN	2	RABEPRAZOLE	9
CLONIDINE*	3	INSULIN LISPRO HUMAN	1	RANITIDINE*	19
CLOPIDOGREL BISULFATE	3	INSULIN NOVOLIN	5	RISPERIDONE	4
CODEINE*	2	INSULIN NPH HUMAN	5	ROFECOXIB	4
COLCHICINE	1	INSULIN REG HUMAN	2	ROPINIROLE	1
CROMOLYN NA	1	IPRATROPIUM BROMIDE	6	ROSIGLITAZONE	9
DIGOXIN*	10	ISOSORBIDE*	13	SALMETEROL	5
DILTIAZEM	8	LAMIVUDINE/ZIDOVUDINE	1	SALSALATE	2
DIVALPROEX	2	LATANOPROST	4	SENNOSIDES	1
DOCUSATE	10	LEVOFLOXACIN	2	SERTRALINE	5
DORZOLAMIDE	2	LEVOTHYROXINE*	12	SEVELAMER HCL	2
DOXEPIN*	1	LISINOPRIL	38	SILDENAFIL	8
ENUCLENE	1	LITHIUM CARBONATE*	1	SIMETHICONE	1
ETODOLAC*	1	LOPERAMIDE HCL	3	SIMVASTATIN	13
EUCERIN	5	LOPINAVIR/RITONAVIR	1	SPIRONOLACTONE*	2
FELODIPINE	9	LORAZEPAM*	3	SULFAMETHOXAZOLE 800/TRIMETH 160MG*	4
FERROUS SULFATE	2	LOSARTAN POTASSIUM	1	SULINDAC	3
		LOVASTATIN	34		

TAMSULOSIN HCL	4	TIMOLOL	5	ZOLPIDEM TARTRATE	1
TEMAZEPAM*	4	TOPIRAMATE	3	ZONISAMIDE	1
TERAZOSIN	8	TRAZODONE*	6	*medications on top 100 list	
TERBINAFINE	1	VENLAFAXINE HCL	2		
TESTOSTERONE CYPIONATE	2	VERAPAMIL*	5	Total	726
THEOPHYLLINE*	4	VITAMIN E	4		
THIAMINE	2	WARFARIN*	4		