

# Policies and Procedures for Sound-alike and Look-alike Medications

<sup>1</sup>Sheetal Singh, <sup>2</sup>Angel R Singh

## ABSTRACT

The sound-alike and look-alike (SALA) drug is one of the most common causes of medication error and is of fear globally. Thus, the probability for error due to confusing drug names is very high. The SALA drug names have become a significant challenge to pharmacists, nurses, patients, and doctors. With thousands of drugs currently on the market, the probability for error is significant. The purpose of this article is to formulate a policy that would help in minimizing medication errors arising with the use of SALA medications.

**Keywords:** Medication errors, Medication management, Patient safety, SALA medications

**How to cite this article:** Singh S, Singh AR. Policies and Procedures for Sound-alike and Look-alike Medications. *Int J Res Foundation Hosp Healthc Adm* 2017;5(1):15-20.

**Source of support:** Nil

**Conflict of interest:** None

## INTRODUCTION

### Sound-alike and Look-alike Medications

Medication names that sound similar are identified as sound-alike medications and medication names in which packaging is visually similar to another product or medication are identified as look-alike medications.<sup>1</sup> Sound-alike medications are those for which generic or trade names of the product or medication sound similar in the spoken or written words. Thus, they have a high potential for medication error.

Human factor concepts that are relevant to the medication use process are simplicity, standardization, differentiation, lack of duplication, and unambiguous communication.<sup>2</sup>

<sup>1</sup>Project Consultant, <sup>2</sup>Assistant Professor

<sup>1</sup>HITES, National Cancer Institute, All India Institute of Medical Sciences, Jhajjar, Haryana, India

<sup>2</sup>Department of Hospital Administration, National Cancer Institute, All India Institute of Medical Sciences, Jhajjar, Haryana India

**Corresponding Author:** Sheetal Singh, Project Consultant HITES, National Cancer Institute, All India Institute of Medical Sciences, Jhajjar, Haryana, India, e-mail: sheetalsingh2003@hotmail.com

## NEED OF THE POLICY

The SALA medications create serious problems in health care, leading to 29% of medication dispensing errors. Approximately 25% of errors reported to national medication error reporting programs is the aftermath of confusion with drug names that sound alike and look alike.<sup>3,4</sup>

## MATERIALS AND METHODS

This was a descriptive cross-sectional study carried between March 2016 and March 2017. The study population included doctors, nursing personnel, pharmacists, and quality managers from tertiary care hospitals of both public and private hospitals of India. Checklist was made after an exhaustive review of literature, which was then improvised. Validation of the checklist was done by experts in quality assurance from the National Accreditation Board for Hospitals and Health care Providers-accredited private hospitals. Subsequently, interaction was done with study population against the backdrop of the checklist and policy was formulated.

## ANALYSIS AND RESULTS

Two hundred people which included doctors, nurses, pharmacists, and quality managers of tertiary care public and private hospitals were approached for interaction against the backdrop of the check list. Total response rate was 60%. A total of 25 responded out of 50 doctors approached, 35 nurses responded out of 50, 24 quality managers interacted out of 50, and 36 pharmacists responded out of 50 approached. Policy was framed after incorporating inputs from responses received against the backdrop of the checklist.

## AIM

The aim of the policy is to augment awareness among health care providers with regard to potential for medication errors due to SALA drugs, hence minimizing medication error.

## OBJECTIVES

- To identify SALA medications, i.e., the drugs which have higher potential of medication error due to similarities in their nomenclature (generic/brand name) or their looks (in packaging).

- To increase awareness among health care providers regarding SALA medications.
- To minimize medication errors arising with the use of SALA medications.
- To ensure ordering, storing, handling, and administration of SALA medications in a standardized manner.

## SCOPE

- All areas of the health care facility where pharmacy is stored.
- All patient care areas of the hospital.

## RESPONSIBILITIES

Pharmacist  
Nursing staff  
Clinicians

## POLICY

### Strategies to Monitor SALA Drugs<sup>3,5-8</sup>

- List of SALA medications to be prepared by the pharmacy of the health care facility. The list needs to be updated every 6 months.
- The list is to be prepared in two sets (Set 1 and Set 2) and drugs are stored in two separate racks/containers accordingly intended to avoid medication error due to close proximity of two SALA medications.
- To evade medication error, while dealing with SALA drugs, tall-man lettering should be practiced. In tall-man lettering, part of a drug's name should be in upper case letters to distinguish SALA drugs from one another in order to avoid medication errors (e.g., predniSONE/predniSOLONE).<sup>9</sup>
- Generic names should also be included in the list of SALA drugs for reconfirming the selection of right medication.
- All nursing stations, treatment rooms, and other patient care area should have the list of SALA medications.
- Any query regarding SALA drugs should be answered by the pharmacy/clinicians at the earliest with correct information.

### How to Store SALA Drugs<sup>3,5-8</sup>

- The SALA medications should not be stocked up along with other medications, anywhere in the hospital.
- The SALA medications should be stored separately in two racks in the pharmacy store, Group I medications in one rack and group II medications in the other rack to avoid medication error.
- In the wards, emergency, and operation theater, the SALA drugs should be stored in separate drug bins or plastic boxes.

- In the pharmacy stores, the list of SALA medications should be hanging from both racks.
- In the ward/unit, the list should be pasted inside medication room, if required, on nursing station.

### Standardizing Warning Signage<sup>10</sup>

Warning stickers pink in color and stating *Sound-alike or Look-alike Medications* need to be pasted on the storage racks in pharmacy.

In the ward/unit, emergency, or operation theater, cupboards storing the SALA drugs should have the *pink colored* SALA medication warning label/sticker outside the cupboard.

Inside the cupboard storing SALA drugs, the containers storing groups I and II SALA medications should have *pink colored* SALA warning sticker.

### How to Standardize Ordering/Prescription of SALA Drugs

- While prescribing SALA medications, CAPITAL LETTERS should always be used and handwriting should be clear and legible.
- While ordering or prescribing SALA medications manually, both the brand and the generic name should be documented in the medication chart.<sup>10</sup>
- Formulary should be accessible to clinicians and staff nurses and facility should be provided for confirming
  - Generic name from a brand name or
  - Available brand names from a generic name
- Before documenting the prescription
  - There should be readback confirmation of the drug name
  - The generic composition of the name should be noted

### How to Dispense SALA Drugs

Medication incidents linked to SALA drug names can pose serious harm to the patients. It is often difficult to detect the medication errors related to SALA drugs as the dispensed medication is presumed to have been the one that is prescribed for the patient.<sup>11</sup>

- At pharmacy or store while dispensing SALA medications, it should be doubly checked by another pharmacist.
- In wards, nursing staff should doubly check SALA medication before dispensing.
- In case of any doubt, it is mandatory that before dispensing SALA medications, the generic name of the drug to be dispensed should be confirmed from the doctors.
- The list of SALA medications should be made available in all the area from where drugs are being dispensed.

**How to Administer SALA Drugs**

List of SALA medications should be available (pasted) in all medication rooms for cross reference.

Sound-alike and Look-alike drugs being high-risk medication, the patient should be monitored periodically,

after administration of the drug, as this group of medications has high potential for medication error.<sup>12</sup>

List of look-alike medications is provided in Annexure 1.<sup>9</sup>

List of sound-alike medications is provided in Annexure 2.<sup>13</sup>

**Annexure 1**

| <i>Look-alike drugs</i> |   |                               |   |
|-------------------------|---|-------------------------------|---|
| <i>Group 1</i>          |   | <i>Group 2</i>                |   |
| <i>Brand name</i>       | <i>Generic</i>  | <i>Brand name</i>             | <i>Generic</i>  |
| Acivir 5 gm Cream       | Acyclovir   | Acivir Eye Ointment 5 gm Tube | Acyclovir   |
| Adaferin                | Adapalene   | Clindac A                     | Clindamycin   |
| Alex syrup              | Chlorpheniramine maleate+Dextromethorphan                   | Alex (Sugar Free)             | Chlorpheniramine maleate+Dextromethorphan                           |
| Alphagan P Eye Drops    | Brimonidine+purine derivatives                              | Alphagan Eye Drops            | Brimonidine   |
| Amantral 100 mg cap     | Amantadine  | Redotil cap                   | Racecadrotil  |
| Ambrodil Syrup          | Ambroxol Hydrochloride                                      | Ambrodil Plus Syrup           | Ambroxol Hydrochloride+Chlorpheniramine maleate                     |
| Ambrolite S Syrup       | Ambroxol Hydrochloride + Salbutamol+Guaifenesin             | Ambrolite D Syrup             | Cetirizine+Dextromethorphan+Pseudoephedrine HCl                     |
| Adriamycin INJ          | Doxorubicin   | Farmorubicin INJ              | Farmorubicin  |
| Amclox                  | Ampicillin+Cloxacillin                                      | Ceff 500                      | Cephalexin  |
| Benzac AC               | Benzoylperoxide   | Premethrin                    | Premethrin  |
| Betadine Gargles        | Povidine Iodine   | Betadine Solution             | Povidine Iodine   |
| Betnovate Cream         | Betamethasone valerate                                      | Betnovate N Cream             | Betamethasone valerate+Neomycin                                     |
| Bioclox Inj. 500 mg     | Cloxacillin   | Biocillin Inj. 500 mg         | Ampicillin  |
| Bricarex A Syrup        | Ambroxol Hydrochloride + Terbutaline+Guaifenesin            | Bricarex Syrup                | Terbutaline   |
| Buscopan Tab            | Hyoscine-N-butylbromide                                     | Dulcolax Tab                  | Bisacodyl   |
| Candid Mouthpaint       | Clotrimazole  | Candid Topical Solution       | Clotrimazole  |
| Cefmate 1 gm            | Cefoperazone+Sulbactam                                      | Piptamate 4.5 gm              | Piperacillin+Tazobactam   |
| Ciplox Cream            | Ciprofloxacin   | Ciplox D Cream                | Ciprofloxacin+Dexamethasone   |
| Clearz                  | Kozic Acid  | Clearz Plus                   | Kozic Acid+ Vitamin C   |
| Clindac A               | Clindamycin   | Desowen                       | Desonide  |
| Corex 100 mL Syrup      | Codeine phosphate + Chlorpheniramine maleate+Alcohol        | Bron Corex 100 mL Syrup       | Bromhexine+Terbutaline+Guaiphenesin                                 |
| Coscopin                | Noscapine   | Coscopin Plus                 | Noscapine+Sodium Citrate+Ammonium Chloride+Chlorpheniramine Maleate |
| Crocin                  | Paracetamol   | Crocin DS                     | Paracetamol suspension  |
| Cutizone T cream        | Mopmetasone Furoate+Terbinafine                             | Cutizone ointment             | Mopmetasone Furoate   |
| Digene Tablets          | Dried aluminum Hydroxide+Mg Al Silicate+Mg(OH) <sub>2</sub> | Gelusil Tablets               | Aluminium hydroxide+magnesium trisilicate+methyl polysiloxane       |
| Dipeptiven 50 mL        | L-Alanine+L-Glutamine                                       | Omegaven 10% 50 mL            | EPA+DHA+Palmitic acid+Myristic acid                                 |
| Duoline                 | Salbutamol+Ipratropium Bromide                              | Seroflo 500 rotacaps          | Fluticasone   |
| Dutas 0.5 mg            | Dutasteride   | Eldervit ZC                   | Vitamin B Complex   |
| Emoderm                 | White Soft Paraffin Emollient cream with Benzoic Acid       | Emolene                       | Propylene glycol and Diazolidinyl Urea                              |
| Emusone Cream           | Clobetasone Propionate                                      | Emusone M Cream               | Clobetasone butyrate + Miconazole nitrate                           |
| Facelin Gel             | Clindamycin Phosphate                                       | Facelin A Gel                 | Clindamycin+Adapalene   |

(Cont'd...)

(Cont'd...)

| Group 1               |   | Group 2                 |   |
|-----------------------|---|-------------------------|---|
| Brand name            | Generic   | Brand name              | Generic   |
| Foracort Inhaler      | Formoterol  | Budecort inhaler        | Budesonide  |
| Fucidine cream        | Fusidic acid  | Fucidine Ointment       | Fusidic acid  |
| Fuucibet cream        | Fusidic acid + betamethasone  | Fucidin Cream           | Fusidic acid  |
| Genteal Gel           | Hydroxypropyl Methylcellulose   | Genteal Eye Drops       | Hydroxypropyl Methylcellulose+boric acid + KCl + NaCl                             |
| Grillinctus Syrup     | Dextromethorphan + guiphenesin + ammonium chloride + chlorpheniramine maleate                           | Grillinctus BM Syrup    | Terbutaline+Bromhexine  |
| Halobet Cream         | Halobetasol   | Halobet S Cream         | Halobetasol+Salicylic acid  |
| Ibugesic Syrup        | Ibuprofen   | Ibugesic Plus Syrup     | Ibuprofen+Paracetamol   |
| Inj Magnex            | Cefoperazone+Sulbactam  | Inj Magnamycin          | Cefoperazone sodium   |
| Inj Solu Medrol 40 mg | Methyl Prednisolone succinate   | Inj Depo-Medrol 40 mg   | Methyl Prednisolone acetate   |
| Inj Stancef 500 mg    | Cefazolin Sodium  | Inj Spectracef 500 mg   | Cefditoren Pivoxil  |
| Inj Supacef 250 mg    | Cefuroxime  | Inj Fortum 250 mg       | Ceftazidime   |
| Inj Taxim 500         | Cefotaxim   | Inj Taximax 1500        | Cefotaxime Sodium +Sulbactam  |
| Inj Xylocaine         | Lidocaine Hydrochloride   | Inj Xylocard            | Lidocaine Hydrochloride   |
| Intralipid 10%        | Fat emulsion  | Aminofen Infant 10%     | Acetaminofen  |
| Liv 52 Syrup          | Herbal Preparation (For appetite)   | Mentat Syrup            | Herbal Preparation (Antiparkinsonism)   |
| Meftal P              | Mefenemic acid  | Meftal Spas             | Dicyclomine   |
| Nadoxin C Cream       | Clobetasol propionate + Nadifloxacin  | Nadoxin Cream           | Nadofloxacin  |
| Nucoxia -p Tablets    | Etoricoxib + Paracetamol  | Nucoxia Tablets         | Etoricoxib  |
| Nizral                | Ketoconazole  | Surfaz SN               | Clotrimazole+ Batamethasone+Neomycin  |
| Polybion Syrup        | Nicotinamide+pantothenyl alcohol + vitamin B + vitamin B12 + vitamin B2 + vitamin B6                    | Polybion SF Syrup       | Vitamin b Complex   |
| Riflux Forte          | Alginic acid + Dried aluminium hydroxide + magnesium hydroxide + sodium bicarbonate                     | Riflux                  | Alginic acid+Dried aluminium hydroxide+magnesium trisilicate + sodium bicarbonate |
| Rumalaya cream        | Herbal preparation for pain   | Pilex Ointment          | Herbal preparation for pain (anti-hemorrhoid)                                     |
| Septillin Capsules    | Herbal immunostimulant  | Liv 52 Capsules         | Herbal Preparation (For appetite)   |
| Septillin Syrup       | Herbal immunostimulant  | Koflet Syrup            | Herbal preparation for cough  |
| Shelcal OS            | Alphacalcidol   | Shelcal 500 mg          | Calcium   |
| Syp Bacigyl           | Norfloxacin   | Syp Bacigyl - N         | Metronidazole+norfloxacin   |
| Syp Dilosyn           | Methdilazine  | Exp Dilosyn             | Methdiazine hydrochloride+ Ammonium Chloride +Sodium Citrate                      |
| Syp Shelcal           | Calcium+Vitamin d3  | Syp Shelcal M           | Boron+calcium carbonate+copper + magnesium oxide + manganese + vitamin D3 + zinc  |
| Taxim O 200 Tablets   | Cefixime  | Taxim - O DT 50         | Cefixime Dispersible tablet   |
| T-Bact Ointment       | Mupirocin   | T - Bact cream          | Mupirocin   |
| Telma H Tablets       | Telmisartan + hydrochlorthiazide  | Telma AM                | Telmisartan + amlodipine besylate   |
| Tenovate Cream        | Clobetasone Propionate  | Tenovate G              | Clobetasone butyrate + Gentamycin   |
| Tropacyl Plus         | Tropicamide + Phenylephrine hydrochloride + Chlorbutol  | Tears Plus              | Ocular lubricant  |
| Venla XR Tablets      | Venlafaxine XR  | Roliten OD 2 mg Tablets | Tolterodine l-tartrate  |
| Visyneral Drops       | Nutritional supplement  | Visyneral Zn Drops      | Nutritional supplement+zinc   |
| Zole ointment         | Miconazole  | Zole F Ointment         | Miconazole+Flucinolone acetoneide   |
| Zytee                 | Choline salicylate + Benzalkonium chloride<br>EPA – Eicosapentaenoic acid<br>DHA – Docosahexaenoic acid | Surfaz SN               | Clotrimazole + betamethasone dipropionate + neomycin sulphate + tolnafatate       |

## Annexure 2

| <i>Sound-alike drugs</i>   |  |                           |  |
|----------------------------|--|---------------------------|--|
| <i>Group 1</i>             |  | <i>Group 2</i>            |  |
| <i>Brand name</i>          | <i>Generic</i>   | <i>Brand name</i>         | <i>Generic</i>   |
| aceRET 25 mg Cap           | Acitretin  | aceTEN 25 mg Tab          | Captopril  |
| aceteC 25 mg Cap           | Acitretin  | aceteN 25 mg Tab          | Captopril  |
| Acivir 200 mg DT Tab       | Acyclovir  | VALcivir 500 mg Tab       | Valacyclovir   |
| adENOCOR 2 mL Inj.         | Adenosine  | adRENOR 2 mL Inj.         | Noradrenaline  |
| ALLegra 120 mg             | Fexofenadine   | EDegra 50 mg              | Viagra   |
| AMtas 10 mg Tablets        | Amlodipine   | DUtas 0.5 mg Cap          | Dutasteride  |
| angiZEM 60 mg Tablets      | Diltiazem  | angiSPAN 2.5 mg Tab       | Glyceryl trinitrate                                    |
| ATArax 10 mg Tab           | Hydroxyzine  | ALPrax 0.5 mg Tablets     | Alprazolam   |
| ATORva 20 mg Tab           | Atorvastatin   | ARAvA 20 mg Tab           | Leflunomide  |
| betaLOC 50 mg Tab          | Metoprolol   | betaTROP 50 mg Tab        | Atenolol+nifedepin                                     |
| busCOPAN 10 mg Tab         | Hyoscine-N-butylbromide  | busPIN 5 mg Tablets       | Buspirone  |
| CellIN 500 mg Tablets      | Ascorbic acid  | CeEMIN 500 mL IV          | Amino acids  |
| celemiN 500 IV             | Parenteral nutritional supplement                              | celemiX 500 IV            | Amino acid+fat+sorbitol                                |
| ciFRAN 500 mg Tablets      | Ciprofloxacin  | CiPLAR 10 mg Tablets      | Propranolol  |
| ciFRAN 500 mg Tablets      | Ciprofloxacin  | septRAN                   | Sulphamethoxazole + Trimethoprim                       |
| CIPLACtin Tablets          | Cyproheptadine   | CALAPtin 40 mg Tablets    | Verapamil  |
| clonIL 10 mg Tablets       | Clomipramine   | clonOTRIL 0.5 mg Tablets  | Clonazepam   |
| COLsprin CV 100 mg Tablets | Aspirin low dose   | ECOsprin AV 150 mg Cap    | Aspirin+atorvastatin                                   |
| DEPSonil Tab               | Imipramine   | DAonil 5 mg Tab           | Glibenclamide  |
| diCONTIN XL 100 mg Tab     | Diltiazem  | diANTIN 25 mg Tab         | Phenytoin  |
| diLIGAN Tab                | Meclizine  | diZEM 30 mg tab           | Diltiazem  |
| domTAC Tablets             | Pantoprazole   | domCET Tablets            | Domperidone  |
| duOLIN Inhaler             | Salbutamol+Ipratropium Bromide                                 | duLANE 30 mg Cap          | Duloxetine   |
| ELOCon 5 mL Lotion         | Mometasone furoate   | EVALon cream 15 gm Tube   | Estriol  |
| EMESet 8 mg Tablets        | Ondansetron  | DOMCet Tablets            | Domperidone  |
| ENCorate                   | Sodium valproate   | DICorate                  | Divalperox sodium                                      |
| ENzar Forte Tablets        | Amylase  | VALZaar 40 mg Tab         | Valsartan  |
| EPidosin INJ               | Valethamate  | EPSolin INJ               | Phenytoin  |
| FAMOCid 20 mg Tablets      | Famotidine   | FERTOMid 25 mg Tab        | Clomiphene   |
| FESal N Tablets            | Pancreatin + bile constituents + hemicellulase                 | MEFtal Forte Tablets      | Mefenemic acid   |
| fungiZONE INJ              | Amphotericin B (conventional)                                  | fungiSOME INJ             | Amphotericin B (Liposomal)                             |
| Genteal 10 gm Gel          | Hydroxypropyl methyl cellulose                                 | Zentel 10 mL Syb Bottle   | Albendazole  |
| GLImer 1 tab               | Glimipride   | GALAmer 4 mg Tab          | Galantamine  |
| GLYnase 5 mg Tab           | Glipizide  | ZInase DP Tab             | Diclofenac potassium + paracetamol + serratiopeptidase |
| I kul 10 mL eye drop       | Phenyl epherine  | I gol 100 gm powder       | Isabgol powder   |
| LIBrax 10 mg Tablets       | Chlordiazepoxide + Clidinium bromide                           | LUBrex 10 mL eye drop     | Sodium carboxyl methyl cellulose                       |
| LARpose 2 mg Tablets       | Lorazepam  | CALMpose 5 mg Tablets     | Diazepam   |
| LOpez                      | Lorazepam  | Topaz                     | Topiramate   |
| lorFAST 10 mg Tablets      | Loratadine   | lorVAS 2.5 mg Tab         | Indapamide   |
| Malirid 7.50 mg Tablets    | Primaquine   | alreid Tablets            | Cetirizine   |
| meftal FORTE Tablets       | Mefenemic caid   | meftal SPAS Tab           | Dicyclomine  |
| metADAC 25 mg Inj.         | Nandrolene decanoate   | metOLAR 25 mg Tab         | Metoprolol   |
| MICROGest 100 mg capsule   | Progesterones + progestogens                                   | MISOPRost 100 mg Tab      | Misoprostol  |
| nephroCAP Cap              | Vitamin B  | nephroSAVE Cap            | N-acetylcysteine +taurine                              |
| NIMEgesic – OD Tablets     | Nimesulide   | IBUgesic 60 mL Syb Bottle | Ibuprofen  |
| novaCLOX 500 mg Capsules   | Amoxycillin+Cloxacillin  | novaMOX Tab               | Amoxicillin  |
| NOVELOn Tablets            | Progestogen+Estrogen   | VOVERAn 50 mg Tablets     | Diclofenac Sodium                                      |
| novOLET MIXTARD 30HM       | Human premixed insulin (30% soluble insulin+70% isophane (NPH) | novELON Tablets           | Progestogen+Estrogen                                   |

(Cont'd...)

(Cont'd...)

| Group 1                  |   | Group 2                  |   |
|--------------------------|---|--------------------------|---|
| Brand name               | Generic   | Brand name               | Generic   |
| numLO Tab                | Amlodipine  | numOL Tab                | Diclofenac+Pracetamol                                     |
| OCid 10 mg Capsules      | Omeprazole  | ROXid 300 mg Tab         | Roxithromycin   |
| Oflox 200 mg Tablets     | Ofloxacin   | NORflox 400 mg Tablets   | Norfloxacin   |
| PACIMOI 650 mg Tablets   | Paracetamol   | PRIMACAI Tab             | Multivitamin+mineral                                      |
| POTrate 200 mL Syrup     | Potassium Citrate   | POTklor 200 mL Syp       | Potassium Chloride  |
| PElox 400 mg Tablets     | Pefloxacin  | CIPlax 500 mg Tablets    | Ciprofloxacin   |
| R CIFAx 200 mg Tablets   | Rifaximin   | R-CINEx 450 mg Tablets   | Rifampicin + Isoniazid                                    |
| REXpar 200 mg Tablets    | Sparfloxacin  | RAClper 40 mg Tablets    | Esomeprazole  |
| SATrogyI 300 mg Tablets  | Satranidazole   | CYCLogyI 5 mL Eye drop   | Cyclopentolate  |
| SATrogyI 300 mg Tablets  | Satranidazole   | METrogyI 400 mg Tablets  | Metronidazole   |
| seFDIN 300 mg Capsules   | Cefdinir  | seBIFIN 250 mg Tablets   | Terbinafine   |
| SELOMax 50 mg Tab        | Amlodipine+metoprolol                                     | SOLIWax 10 mL Ear Drop   | Sodium 1,4-bis(2-ethylhexoxy)-1,4-dioxobutane-2-sulfonate |
| solET Tab                | Sotalol   | solITEN 5 mg Tab         | Solifenacin succinate                                     |
| SOLIWax 10 mL Ear Drop   | Sodium 1,4-bis(2-ethylhexoxy)-1,4-dioxobutane-2-sulfonate | COLIMEx 10 mL Drop       | Dicyclomine   |
| solONEX 300 mg Tab       | Isoniazid   | solIWAX 10 mL Ear Drop   | Sodium 1,4-bis(2-ethylhexoxy)-1,4-dioxobutane-2-sulfonate |
| sporANOX 100 mg Capsules | Itraconazole  | sporIDEX AF 750 mg Tab   | Cephalexin  |
| SYSCAn 150 mg Capsules   | Fluconazole   | SUSTEn 100 mg Cap        | Progesterones+progestogens                                |
| TOPCid 20 mg Tablets     | Famotidine  | ROXid 150 mg Tablets     | Roxithromycin   |
| TORLactone – 10 Tablets  | Torseamide+Spironolactone                                 | ALDactone 100 mg Tablets | Spirinolactone  |
| TRENTal 400 mg Tablets   | Pentoxifylline  | TEGRItal 400 mg Tablets  | Carbamazepine   |
| UROtone 25 mg Tab        | Bethanechol Chloride                                      | UTERone 100 mg Cap       | Progesterones+progestogens                                |
| valANCE 500 mg Tab       | Divalproex  | valENT 40 mg Cap         | Valsartan   |
| xylocARD Inj 50 mL Vial  | Lidocaine Hydrochloride                                   | xylocAINE 2% 30 mL Inj.  | Lidocaine Hydrochloride                                   |
| ZEMpred 8 mg Tab         | Methylprednisolone  | ACTOpred 500 mg Inj      | Methylprednisolone Sodium Succinate                       |
| ZINconia SYP             | Zinc  | ZINcovit SYP             | Zinc +Multivitamins                                       |
| zeNTEL 400 mg Tab        | Albendazole   | zePTOL 100 mg Tab        | Carbamazepine   |
| zinCOLAK Capsules        | Zinc Sulfate Monohydrate                                  | zinETAC 150 mg Tab       | Ranitidine  |
| Zocef 250 mg Tablets     | Cefuroxime  | MONocef 250 mg Inj       | Ceftriaxone   |
| zoCON 150 mg Tablets     | Fluconazole   | zoBONE Inj               | Zoledronic acid   |
| zyrcoF Syrup             | Cefadroxil + Ambroxal                                     | zyrcoLD Tab              | Cetirizine + Ambroxal                                     |
| ZYROP 2000 IU Inj        | Erythropoietin  | ZYRcof syrup             | Cefadroxil + Ambroxal                                     |

## REFERENCES

- Ciociano N, Bagnasco L. Look alike/sound alike drugs: a literature review on causes and solutions. *Int J Clin Pharm* 2014 Apr;36(2):233-242.
- Ismail S, Taqi A. Medical errors related to look-alike and sound-alike drug. *Anaesth Pain Intensive Care* 2013;17(2):117-122.
- Kenagy JW, Stein GC. Naming, labelling and packaging of pharmaceuticals. *Am J Health Syst Pharm* 2001 Nov;58(21):2033-2041.
- Bates DW, Cullen D, Laird N, Peterson LA, Small SD, Servi D, Laffel G, Sweitzer BJ, Shea BF, Hallisey R, et al. Incidence of adverse drug events and potential adverse drug events: implications for prevention. *J Am Med Assoc* 1995 Jul;274(1):29-34.
- World Health Organization. WHO Collaborating Centre for patient safety solutions, look-alike sound-alike medication names. Patient safety solutions. Geneva: WHO; 2007.
- Davis NM, Cohen MR, Teplitsky B. Look-alike and sound alike drug names: the problem and the solution. *Hospital Pharmacy* 1992;27:95-98, 102-105, 108-110.
- McCoy LK. Look-alike, sound-alike drugs review: include look-alike packaging as an additional safety check. *Jt Comm J Qual Patient Saf* 2005 Jan;31(1):47-53.
- Cohen MR, Anderson RW, Attilio RM, Green L, Muller RJ, Pruemer JM. Preventing medication errors in cancer chemotherapy. *Am J Health Syst Pharm* 1996 Apr;53(7):737-746.
- Naunton M, Gardiner HR, Kyle G. Look-alike, sound-alike medication errors: a novel case concerning a slow-Na, slow-K prescribing error. *Int Med Case Rep J* 2015 Feb;8:51-53.
- Ostini R, Roughead EE, Kirkpatrick CMJ, Monteith GR, Tett SE. Quality use of medicines—medication safety issues in naming; look-alike, sound-alike medicine names. *Int J Pharm Pract* 2012;20(6):349-357.
- Zaida R, Rukhsana P. Medication errors associated with look-alike/sound-alike drugs: a brief review. *J Enam Med Col* 2015 May;5(2):110-117.
- Tuohy N, Paparella S. Look-alike and sound-alike drugs: errors just waiting to happen. *J Emerg Nurs* 2005 Dec;31(6):569-571.
- Lambert BL, Lin SJ, Chang KY, Gandhi SK. Similarity as a risk factor in drug-name confusion errors: the look-alike [orthographic] and sound-alike [phonetic] model. *Medical Care* 1999 Dec;37(12):1214-1225.