

WARNING

INCREASED RISK OF DEATH ASSOCIATED WITH THE USE OF TIGECYCLINE TYGACIL®

The Saudi Food and Drug Authority (SFDA) would like to provide healthcare professionals (HCPs) with an important safety information of an increased mortality risk associated with the use of tigecycline compared to other antibiotics used to treat similar infections.

There was a numerically more cases of death in tigecycline-treated patients in comparison to other antibiotics, particularly when tigecycline was used for hospital acquired pneumonia and ventilator associated pneumonia (unapproved indications). Although, the mortality difference was not statistically significant for each indication when analyzed separately, a pooled analysis showed that there was a statistically significant increase risk of death in tigecycline-treated patients compared to patients treated with other antibiotics. The SFDA concluded that the risk of death increases when tigecycline is used for unapproved indications.

Consideration for Healthcare Professionals:

1. Tigecycline should only be used when the use of alternative antibiotic is considered inappropriate.
2. Tigecycline should be used only for approved indications in Saudi Arabia as follows:

a. Complicated Skin Infection.	
b. Soft Tissue Infection.	c. Complicated Intra-abdominal Infection.

- 3- Tigecycline should not be used for treatment of the following unapproved indications :

a. Community Acquired Pneumonia.	b. Hospital Acquired Pneumonia .
c. Ventilator Associated Pneumonia.	d. Diabetic Foot.

WARNING

AWARENESS

ANNUAL REPORT

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PROPYLENE GLYCOL AND SORBITOL INFORMATION UPDATE

The Saudi Food and Drug Authority's (SFDA) National Drug and Poison Information Center (NDPIC) were requested to evaluate the safety of Sorbitol and Propylene glycol when they add it to the mouthwash, and what kind of precaution need to be taken for this combination.

Introduction:

Alcohol is any organic compound in which a hydroxyl functional group (-OH) is bound to a carbon atom.

Ethanol (C₂H₅OH) is the type of alcohol, due to the presence of hydroxyl functional group. Ethanol found in many alcoholic beverages which may lead to drunkenness.

Propylene glycol and Sorbitol are chemically the same as other alcohols products that contain hydroxyl group. Propylene glycol is produced chemically while Sorbitol is produced endogenously in humans and found naturally.

The word "alcohol" is a term commonly used among the community to specific alcohol called ethanol. There are Many chemicals fall under the broad chemical classification known as "alcohols" due to the presence of hydroxyl group but these compounds are completely unrelated and distinct from ethanol. One of these compounds are Propylene glycol and Sorbitol. These compounds are different from ethanol in both chemical and pharmacological properties to induce drunkenness.

Difference Between Ethanol and Propylene glycol or Sorbitol

Mechanism of action:

Ethanol passes directly from the digestive tract into the blood vessels. In minutes, the blood transports the alcohol to all parts of the body, including the brain. Alcohol affects the brain's neurons in several ways. It alters their membranes as well as their ion channels, enzymes, and receptors.

Ethanol binds directly to the receptors for acetylcholine, serotonin, GABA, and the NMDA receptors for glutamate.²

Ethanol stimulates inhibitor pathways by two methods:

Potentiates the specific g-2L subunit of the GABA receptor, which activates the protein kinase C and causes sedation.²

Inhibits the release of neurotransmitters - glutamate, and acetylcholine (ACH).²

Propylene glycol has shown in several animal studies

an inhibitory effect on the central nervous system by a process that is still poorly understood and without any human data support this information's within Health-based recommended exposure limit. The inhibitory effect of Propylene glycol on the central nervous system may appear only in toxic dose.⁴

Sorbitol has no data demonstrate any of the drunkenness effects in human or animals.³

The Classification, Sources and synthesis

Ethanol: is an monohydric alcohol, result from a petrochemical, through the hydration of ethylene, and biologically, by fermenting sugars with yeast.¹

Propylene glycol: is an polyhydric organic compound a diol or double alcohol, Commercial production of propylene glycol is by hydration of propylene oxide and used in artificial smoke.¹

Sorbitol : polyhydric alcohol and called as sugar alcohol. Sorbitol is found naturally in apples, peaches, and prunes and it is produced endogenously in humans from glucose.¹

Pharmacokinetics properties

Ethanol: is metabolized in the body, primarily by the group of enzymes collectively called alcohol dehydrogenase, to produce acetaldehyde; the buildup of acetaldehyde in the blood is one of the factors which contributes to the symptoms of a hangover and other effects such as flushing and tachycardia.⁵

Propylene glycol: is metabolized in the body by oxidation to pyruvic acid, acetic acid, lactic acid and propionaldehyde.⁶

Sorbitol : is a type of sugar alcohol that are more slowly or incompletely absorbed by the human digestive system. Sorbitol is converted to glucose more slowly, require little or no insulin to be metabolized.⁷

Conclusion:

In general, these data suggest that both Sorbitol and Propylene glycol similar to ethanol due to the presence of hydroxyl functional group in their chemical structure but they are completely different in their effects, mechanism of actions, metabolic pathways and their metabolites.

Therefore, the NDPIC does not see any restriction for use of Sorbitol and propylene glycol in mouthwash preparations.

Reference List:

- 1- Graham Solomons and Craig Fryhle. Organic Chemistry.7th ed. New York: John Wiley & Sons Inc., 2000, p. 477-479, 482-483.
- 2- Stahl SM. Essential Psychopharmacology. New York, NY: Cambridge University Press; 1996.
- 3- Lin HQ, Burden PM & Johnston GAR (1998). Propylene glycol elicits anxiolytic-like responses to the elevated plus-maze in male mice. Journal of Pharmacy and Pharmacology, 50: 1127-1131.
- 4- Office of the Federal Register, General Services Administration. Code of Federal Regulations, Title 21, Section 184.1835, Washington, D.C., U.S. Government Printing Office, 1993.
- 5- Wallgren, H. Absorption, diffusion, distribution and elimination of ethanol: Effect on biological membranes. In: International Encyclopedia of Pharmacology and Therapeutics. Vol. 1. Oxford:Pergamon, 1970. pp. 161-188.
- 6- Agency for Toxic Substances and Disease Registry (ATSDR). 1997. Toxicological profile for ethylene glycol and propylene glycol. Atlanta, GA: U.S. Department of Health and Human Services,Public Health Service.
- 7- Joint FAO/WHO Expert Committee on Food Additives. Toxicological evaluation of certain food additives: sorbitol. Twenty-sixth report. WHO Technical Report Series 683, pp. 218-228. Geneva, 1982.

NATIONAL DRUG AND POISON INFORMATION CENTER ANNUAL REPORT (2010)

“information is not knowledge, and knowledge comes from the interpretation of information”

The NDPIC aims to provide state of the art pharmaceutical information services to various consumer, including health care providers , public, and industry through all the available resources and consist with the scope of services of the Drug sector. The mission of the NDPIC is to provide comprehensive, objective, unbiased, and evidence-base information to health-care providers for decision making and public or industry for awareness and safety, and to become one of the national and international leader center for excellence in the quality of information services, and best practice.

Tasks completed by the NDPIC

Answering inquiries	854
Package insert review	597
Reports	238
Committee Assignments	149
Education	161

INQUIRIES

The National Drug and Poison Information Center has received a total of 854 inquiries. Most of the inquiries was received through the NDPIC website, other were received through phone or by coming to SFDA building. Drug information services may use the systematic approach, or adaption of it, as the basis for responding to drug information inquiries. When a question is received, the detailed query and the callers basic details are documented and a literature search is started. Answers are obtained from up-to-date medical and pharmaceutical journals, standard reference books, and computerized on-line data bases. Details of the inquiries received and the responses provided by the centre are documented in a standard question/answer form. Each record contains the date, inquirers name and status, detailed inquiry, reply, reference/ sources used and the names of the person/s who answered the query. In most instances queries have been answered within 24 hours of receiving the query.

Inquiries Received Through No. of Inquiries

Website	567
Phone calls	219
Walk-in	68
Total	854

Number Of Inquiries In Each Month

Month	No. of Inquiries
January	45
February	54
March	79

April	74
May	85
June	62
July	48
August	54
September	42
October	64
November	47
December	31

BACKGROUND OF INQUIRIES

Majority of the inquiries were from public and some from health care providers. Critical information that defines the problem and elucidates the context of the question need to be collected in order to ensure that he understands the context of the query and the scope of the issue or problem.

Number of Enquiries

Public	735
Healthcare Provider	119
Total	854

CLASSIFICATION OF THE INQUIRIES

Analyzing the results of the consults volume according to the request types, it was found that the most common request types were for general information

about Herbals and naturals products and then the drug therapeutic use, and Contraindication /warning.

Classification No. of Inquiries

Herbals and naturals	173
Therapeutics	115
Adverse Reactions	102
Regulations	101
Contraindications/warnings	91
Drug Evaluation	66
Others	52
Availability	51
Pregnancy/Lactation	36
Dosage	22
Cosmetic	20
Disease	18
Drugs Comparison	15
Drug Identification	11
Interactions	7
Compatibility	5
kinetics	5

PACKAGE INSERT REVIEW

The National Drug and Poison Information Center

has reviewed a total of 597 package insert. The primary purpose of medicines labeling and packaging should be the clear unambiguous identification of the medicine and the conditions for its safe use. Information on how a medicine should be used is provided to doctors and pharmacists in the Summary of Product Characteristics (SPC). Information to patients or consumers is provided on the label and, more recently, by patient information leaflets (PILs), unless all the necessary information can be included on the label. All applications submitted for review includes Package Insert Review for new medication and update of old Package Insert component has been evaluated.

Month	No. of Package Insert Reviewed
January	33
February	38
March	43
April	42
May	46
June	45
July	47
August	48
September	52
October	61
November	64
December	78
Total	597

REPORTS

The National Drug and Poison Information Center has prepared 238 reports as a total. NDPIC has been asked to provide response to a variety of requests either from Internal requests from other sections and committees in SFDA, or from outside reports from another instantiations. While the type of requester, query, and setting can vary, the process of formulating response remains constant.

Internal Reports:

A. SFDA Sections: 162 reports

Month	No. of Internal Reports
January	8
February	9
March	12
April	11
May	12
June	17
July	15
August	14
September	16
October	15
November	16
December	17
Total	162

B. External Reports: 47 reports

Institutions outside SFDA: 76 reports

Month	No. of Outside Reports
January	3
February	4
March	5
April	5
May	6
June	8
July	4
August	7
September	5
October	8
November	10
December	11
Total	76

COMMITTEE ASSIGNMENTS

The NDPIC has prepared a total of 149 reports. The NDPIC has been routinely asked to provide responses to a variety of requests either from different committees in SFDA such as Classification Committee, Herbal & Natural products Committee, Preparatory Committee.

SFDA Committees: 149 reports

Month	Committee Assignments
January	10
February	11
March	11
April	12
May	13
June	11
July	10
August	13
September	9
October	14
November	16
December	17
Total	149

EDUCATION

NDPIC has to enhance the pharmacists' knowledge, expertise, and prioritize their responsibilities to best provide high quality of pharmaceutical care services in different health care topics such as drugs, disease, clinical evaluation, etc.

Education in NDPIC	Number
Lectures	43
Evidence Based Medicine Sessions	26
Literature Review Sessions	33
Meetings and Discussions	59
Total	161

TRAMADOL – STATUS AS A CONTROLLED SUBSTANCE IN SAUDI ARABIA

The National Drug and Poison Information Center (NDPIC) was asked to comment on the status of tramadol as a controlled substance in Saudi Arabia and if this drug should be delisted as a controlled substance.

Background:

Tramadol was originally licensed in Germany in 1977 and has been registered in more than 45 countries. It was approved for marketing in the U.K. June 1994, in the U.S. March 1995, and in Australia in late 1998. Tramadol is also licensed for use in the Kingdom of Saudi Arabia as a controlled drug.¹

Tramadol is a synthetic opioid and is a centrally acting analgesic with opioid agonist properties that has demonstrated effects on noradrenergic and serotonergic neurotransmission. Tramadol can be considered a codeine analogue.¹

Tramadol's Control Status in Other Countries:

The table below summarizes the status of tramadol as a controlled substance in other countries.

COUNTRY	CONTROL STATUS
Australia	Not controlled
Canada	On going to be a controlled
Sweden	Controlled
UAE	Controlled
US	Not controlled

Saudi Arabian Package Insert For Tramadol (TRAMAL)[®]

The package insert available for the product Tramal produced by Gruenthal GmbH includes the following two statements.²

1. Tramadol, the active substance in Tramal Retard 100 mg, is a painkiller belonging to the class of the opioids and acts on the central nervous system.
2. Please note that Tramal Retard 100 mg may lead to physical and psychological addiction.

This manufacturer considers tramadol to be an opiate with a potential for dependence or addiction.

U.S. Package Insert For Tramadol (ULTRAM)[®]

The following information is taken directly from the professional product label or package insert for Ultram.³

1. CLINICAL PHARMACOLOGY

Pharmacodynamics "ULTRAM[®] is a centrally acting synthetic opioid analgesic."

2. Withdrawal

"Withdrawal symptoms may occur if ULTRAM[®] is discontinued abruptly (see DRUG ABUSE AND DEPENDENCE). These symptoms may include: anxiety, sweating, insomnia, rigors, pain, nausea, tremors, diarrhea, upper respiratory symptoms, piloerection, and rarely hallucinations. Other symptoms that have been seen less frequently with ULTRAM[®] discontinuation include panic attacks, severe anxiety, and paresthesias. Clinical experience suggests that withdrawal symptoms may be avoided by tapering ULTRAM[®] at the time of discontinuation."

3. Physical Dependence and Abuse

"ULTRAM[®] may induce psychic and physical dependence of the morphine-type (μ -opioid) (see DRUG ABUSE AND DEPENDENCE). ULTRAM[®] should not be used in opioid-dependent patients. ULTRAM[®] has been shown to reinitiate physical dependence in some patients that have been previously dependent on other opioids. Dependence and abuse, including drug-seeking behavior and taking illicit actions to obtain the drug, are not limited to those patients with prior history of opioid dependence."

4. DRUG ABUSE AND DEPENDENCE

"ULTRAM[®] may induce psychic and physical dependence of the morphine-type (μ -opioid). Dependence and abuse, including drug-seeking behavior and taking illicit actions to obtain the drug are not limited to those patients with prior history of opioid dependence. The risk in patients with substance abuse has been observed to be higher. ULTRAM is associated with craving and tolerance development."

Tramadol is considered a synthetic opioid with the potential for abuse and dependence.

Swedish Experience with Tramadol – Addiction and dependence

The Swedish adverse reaction database, SWEDIS, contains 71 reports from 1996 to 2005 of abstinence/withdrawal symptoms with tramadol, 25 of which were also classed as dependence, habituation or increased tolerance. The treatment duration in the 71 reports ranged from 1 week to more than 3 years, at dosages of 50-2000mg, indicating that withdrawal symptoms have been reported at low-to-normal doses and after treatment periods of < 6 months. Some symptoms reported following tramadol withdrawal were similar to that observed with opioids, including shivering, sweating, pain, sleep disorders and nausea, whilst other atypical symptoms such as anxiety, nervousness, feeling of derealization, hallucinations, tremor, muscle cramps and paraesthesia have also been reported. Based on these reports, the agency say that tramadol may convey a risk for dependency and abuse, and even short-term use may lead to troublesome withdrawal symptoms without a slow phase out. Physicians are reminded of the potential for withdrawal reactions and/or the risk of dependency with tramadol.⁴

Efficacy- US Package Insert For Tramadol (ULTRAM)[®]

The following information is taken directly from the Clinical Studies section of the U.S. professional product label or package insert for Ultram.³

CLINICAL STUDIES

ULTRAM[®] has been given in single oral doses of 50, 75 and 100 mg to patients with pain following surgical procedures and pain following oral surgery (extraction of impacted molars).

In single-dose models of pain following oral surgery, pain relief was demonstrated in some patients at doses of 50 mg and 75 mg. A dose of 100 mg ULTRAM[®] tended to provide analgesia superior to codeine sulfate 60 mg, but it was not as effective as the combination of aspirin 650 mg with codeine phosphate 60 mg.

"ULTRAM[®] has been studied in three long-term controlled

trials involving a total of 820 patients, with 530 patients receiving ULTRAM®. Patients with a variety of chronic painful conditions were studied in double-blind trials of one to three months duration. Average daily doses of approximately 250 mg of ULTRAM® in divided doses were generally comparable to five doses of acetaminophen 300 mg with codeine phosphate 30 mg (TYLENOL® with Codeine #3) daily, five doses of aspirin 325 mg with codeine phosphate 30 mg daily, or two to three doses of acetaminophen 500 mg with oxycodone hydrochloride 5 mg (TYLOX®) daily." Tramadol has been shown not to be as effective as the combination of aspirin and codeine. In other preapproval clinical trials

tramadol was comparable to other combination analgesics.

CONCLUSION:

Tramadol is a marginally effective opioid analgesic and similar to other opioids has the potential to cause dependence and addiction. Tramadol's status as a controlled substance is not consistent across the countries surveyed for this report. This may have been due to differences in regulatory between these countries.

RECOMMENDATION:

Tramadol meets the generally accepted definition of a controlled substance. The NDPIC recommends that tramadol remain a controlled substance in Saudi Arabia.

POTASSIUM SUPPLEMENTATION

Introduction

*The potassium ion is the principal intracellular cation of most body tissues. Potassium ions are crucial in a number of essential physiological processes, including the maintenance of intracellular tonicity, the transmission of nerve impulses, the contraction of cardiac, skeletal, and smooth muscle, and the maintenance of normal renal function. The intracellular concentration of potassium is approximately 150 to 160 milliequivalents (mEq) per liter. The normal adult plasma concentration is 3.5 to 5 mEq per liter. An active ion transport system maintains this gradient across the plasma membrane.*³

Potassium is a normal dietary constituent, and under steady state conditions the amount of potassium absorbed from the gastrointestinal tract is equal to the amount excreted in the urine. The usual dietary intake of potassium is 50 to 100 mEq per day.¹

Potassium supplements are indicated for the treatment of patients with potassium depletion (hypokalemia) with or without metabolic alkalosis and in digitalis intoxication in patients with hypokalemic familial periodic paralysis.

It is also indicated for the prevention of hypokalemia in patients who would be at particular risk if hypokalemia were to develop (e.g., patients receiving digitalis therapy or patients with significant cardiac arrhythmias).³

The most common adverse reactions to oral potassium are nausea, vomiting, flatulence, abdominal pain and/or discomfort, and diarrhea.

Safety evidence

Potassium toxicity is more likely to result from renal insufficiency due decreased kidney function or decreased water intake than from excess consumption.²

Serious cardiac toxicity develops when serum potassium levels become too high (>6.5 mEq per L), but the amounts of potassium associated with such hyperkalemic states depend heavily on water consumption and kidney function. Because of the impact of these factors as well as of other electrolytes (sodium and chloride), the evidence for potassium safety or toxicity at a particular intake level must be judged cautiously.²

Supplementation trials have found no adverse effects of potassium at daily doses of 1,900 mg or 2,340 mg. the evaluations for possible adverse effects were not specified.^{2,4}

A meta-analysis of clinical trials on potassium (mostly potassium chloride) for possible lowering of blood pressure

indicated that this mineral "appeared to be well tolerated in all studies included". The potassium dosages in those clinical trials ranged from 1,876 to 7,820 mg per day. The dietary potassium levels were not identified.²

Potassium doses of 1,250 mg administered three times per day produced only minor and infrequent adverse effects.²

Published official reviews of potassium safety

The American Food and Nutrition Board (FNB) has reviewed potassium, the other electrolytes, and water to establish new dietary reference intakes (DRI). The FNB concluded that large amounts of supplemental potassium can cause acute or chronic toxicity, but that there was not enough data to support a tolerable Upper Intake Level (UL).³

The UK Expert group on Vitamins and Minerals (EVM) concluded that the evidence was not sufficient to set a safe upper level (SUL), but could support a guidance level (GL).^{1,5}

UK EVM set 3,700 mg as the GL for potassium. It was not specified whether this GL applied to supplemental potassium or total intake from all sources.²

The U.S.FDA requires labeling on oral drug products containing 100 mg or more of potassium, warning that "there have been several reports, published and unpublished, concerning non specific small-bowel lesions" related to use of such products. The FDA did not provide any dose-response evaluation that would justify such a finding, but concluded that "coated potassium tablets should be used only when adequate dietary supplementation is not practicable. on other hand, Saudi FDA considered any potassium supplements to be regulated as drugs."²

Conclusion

The clinical trial data on potassium, together with the epidemiology supporting the safety of larger amounts of potassium from fruits and vegetables, indicates that this nutrient has a wide margin of safety. Clinical trials collectively show no pattern of adverse effects for supplemental potassium of 1,500 mg, with the potassium from foods being unspecified.

Larger quantities of potassium can produce gastrointestinal effects, and these seem more likely if the daily total is ingested all at once, especially on an empty stomach.

The UK EVM established guidance indicating that 3,700 mg of potassium was safe, but did not specify the amounts for foods and supplements.

The only discernable justification of potassium to be regulated as drug is the life-threatening illness occur by hyperkalemia which can lead to sudden death from cardiac arrhythmias.

Reference List:

- 1- Expert Group on Vitamins and Minerals. Safe upper levels for vitamins and minerals, Food Standards Agency, United Kingdom, 2003.
- 2- Food and Drug Administration. Drugs : General.201.306 potassium salt preparations intended for oral ingestion by man. Federal register 1975;40:14011-14012
- 3- Food and Nutrition Board. Dietary reference intakes for water, potassium, sodium chloride, and sulfate. Washington, DC: National Academy press,2004.
- 4- Fotherby MD, potter JF. Potassium supplementation reduce clinical and ambulatory blood pressure in elderly hypertensive patients. J hypertens 1992; 10:1403-1408
- 6- Grimm RH, Kofron PM, Neaton JD, Svendsen KH, Elmer PJ, Holland L, Witte L, Clearman D, Prineas RJ. Effect of potassium supplementation combined with dietary sodium reduction on blood 7- pressure in men taking antihypertensive medications. J hypertens Suppl.1988;6:S591-3.

LATST DRUGS REGISTERED BY SFDA



Generic name	Trade name	Strength	Price S.R	Manufacturer
ACYCLOVIR (ACICLOVIR)	ACICLIN 5% CREAM	5%	20.75	FIDIA - ITALY
ALISKIREN, HYDROCHLOROTHIAZIDE	RASILEZ HCT 150/25MG FILM COATED TAB	150, 25 MG	101.3	NOVARTIS - ITALY
ALISKIREN, HYDROCHLOROTHIAZIDE	RASILEZ HCT 300/25MG FILM COATED TAB	300, 25 MG	124.4	NOVARTIS - ITALY
ALISKIREN, HYDROCHLOROTHIAZIDE	RASILEZ HCT 300/12.5MG FILM COATED TAB	300, 12.5 MG	124.4	NOVARTIS - ITALY
AMPHOTERICIN-B	AMBISOME 50MG VIAL	50 MG	6750	GILEAD SCIENCES INC - USA
CARBIMAZOLE	NEO-MERCAZOLE 5MG TAB	5 MG	21.85	CENEXI - FRANCE
CELECOXIB	CELEBREX 200MG CAPS	200 MG	62.3	G.D.SEARLE - USA
CLARITHROMYCIN	CLARITT XL 500MG EXTENDED RELEASE TAB	500 MG	60.15	TABUK PHARMACEUTICAL MANUFACTURING CO. - KSA
CLOMIFENE (CLOMIPHENE) CITRATE	FERTAB 50MG TAB	50 MG	15.75	OMAN PHARMACEUTICAL PRODUCTS - OMAN
EVEROLIMUS	AFINITOR 5 MG TAB	5 MG	15308.7	NOVARTIS - SWITZERLAND
EXENATIDE	BYETTA 250 MCG/ML PRE - FILLED PEN	250 MCG	511.3	BAXTER PHARMACEUTICAL SOLUTION LLC - USA
IBUPROFEN	NUROFEN 200MG TAB	200 MG	7.85	RECKITT BENCKISER HEALTHCARE INTERNATIONAL - UK
GALANTAMINE	REMINYL 8 MG PROLONGED RELEASE CAP	8 MG	240.75	JANSSEN-CILAG - ITALY
GALANTAMINE	REMINYL 16 MG PROLONGED RELEASE CAP	16 MG	340.55	JANSSEN-CILAG - ITALY
GALANTAMINE	REMINYL 24 MG PROLONGED RELEASE CAP	24 MG	443.3	JANSSEN-CILAG - ITALY
GEMCITABINE	GEMCITABIN EBEWE 1000MG-100ML VAIL	1000 MG	600.2	EBEWE PHARMA - AUSTRIA
GEMCITABINE	GEMCITABIN EBEWE 200MG-20ML VAIL	200 MG	125.5	EBEWE PHARMA - AUSTRIA
GEMCITABINE	GEMCITABIN EBEWE 500MG-50ML VAIL	500 MG	300.1	EBEWE PHARMA - AUSTRIA
LIDOCAINE (LIGNOCAINE)	VERSATIS 5% MEDICATED PLASTER	5%	98.05	TEIKOKU SEIYAKU - JAPAN
MENINGOCOCCAL GROUP A,C,W135 & Y	MENACTRA 4 MCG SOLUTION FOR INJECTION	4 MCG	246.4	SANOFI PASTEUR - FRANCE
MENINGOCOCCAL GROUP A,C,W135 & Y	MENVEO POWDER SOLUTION FOR INJECTION	10, 5, 5, 5 MCG	246.4	NOVARTIS VACCINE AND DIAGNOSTICS S.R.I - ITALY
OLANZAPINE	ZYPADHERA 210MG POWDER FOR SOLUTION FOR I.M. INJECTION	210 MG	891.85	ELI LILLY - GERMANY
OLANZAPINE	ZYPADHERA 300MG POWDER FOR SOLUTION FOR I.M. INJECTION	300 MG	1274.05	ELI LILLY - GERMANY
OLANZAPINE	ZYPADHERA 405MG POWDER FOR SOLUTION FOR I.M. INJECTION	405 MG	1720	ELI LILLY - GERMANY
PROPRANOLOL	INDERAL 10 MG. TAB	10 MG	20	AstraZeneca - UK
PROPRANOLOL	INDERAL 40 MG. TAB	40 MG	40	AstraZeneca - UK
PROPRANOLOL	INDICARDIN 40 MG TAB	40 MG	10.866	APM - JORDAN
PROPRANOLOL	INDICARDIN 10 MG TAB	10 MG	5.07	APM - JORDAN
PIPERACILLIN, TAZOBACTAM	PRIZMA 2GM/0.25GM POWDER FOR I.V. INFUSION	2000, 250 MG	35.6	LABORATORIO REIG JOFRE - SPAIN
SITAGLIPTIN, METFORMIN	JANUMET 50/1000 MG TAB	50, 1000 MG	152	PATHEON INC - PUERTO RICO
SITAGLIPTIN, METFORMIN	JANUMET 50/850 MG TAB	50, 850 MG	146.7	PATHEON INC - PUERTO RICO
VENLAFAXINE	VEXAL RX 37.5 MG EXTENDED RELEASE CAPS	37.5 MG	30.05	Jazeera Pharmaceutical Industries (JPI) - KSA
VENLAFAXINE	VEXAL RX 75 MG EXTENDED RELEASE CAPS	75 MG	60.1	Jazeera Pharmaceutical Industries (JPI) - KSA
VENLAFAXINE	VEXAL RX 150 MG EXTENDED RELEASE CAPS	150 MG	101.85	Jazeera Pharmaceutical Industries (JPI) - KSA

وجه التشابه والاختلاف بين مادة السوربيتول (Sorbitol) أو البروبيلين جليكول (Propylene glycol) وبين الكحول الايثيلي (ethanol)

وأماكنية استخدامها كبدايل في المستحضرات الصيدلانية من الأخطاء الشائعة عند كثير من الناس وبعض المتخصصين الخلط بين كلمة الكحول العامة التي غالبا ما يكون المقصود فيها الكحول الايثيلي (ethanol) وكلمة الكحول العلمية التي ينطوي تحتها مجموعة كبيرة من المركبات، وبالتالي عند ذكر مصطلح الكحول فأول ما يتبادر إلى الذهن هو ذلك التأثير المسكر الذي يؤدي بالإنسان لفقدان عقله، وهذا خطأ شائع لدى الكثير من المجتمعات باختلاف لغاتها. فبصفة عامة تعرّف الكحوليات (أو الأغوال) على أنها طائفة كبيرة من المركبات العضوية تتميز باحتوائها على مجموعة الهيدروكسيل (-OH) تكون مرتبطة بذرة الكربون كمجموعة وظيفية، وقد ورد لهيئة العامة للغذاء والدواء الكثير من التساؤلات عن إمكانية استبدال الكحول الايثيلي (ethanol) بمادتي السوربيتول (Sorbitol) أو البروبيلين جليكول (Propylene glycol) في كثير من المستحضرات الصيدلانية وان كان لهما للتأثير نفسه لمادة الكحول الايثيلي (ethanol).

فبعد مراجعة البيانات والمراجع العلمية المعتمدة من قبل الهيئة العامة للغذاء والدواء المتعلقة بهذا الشأن، أتضح أن كلا من مادتي السوربيتول (Sorbitol) والبروبيلين جليكول (Propylene glycol) يتشابهان مع الكحول الايثيلي (ethanol) في التسمية لاحتواء هذه المركبات في تركيبها الكيميائي على مجموعة الهيدروكسيل (-OH) الوظيفية، ولكنهما مختلفان تماما في التأثير بحيث أن مادتي السوربيتول (Sorbitol) والبروبيلين جليكول (Propylene glycol) لا يوجد لهما حتى كتابة هذا التقرير أي تأثير مسكر على الإنسان قد يؤدي لفقدان العقل كما هو معروف بالمفهوم الإسلامي، وهذا نتيجة اختلاف الآلية التي تتفاعل فيها تلك المادتين مع الجسم عن مادة الكحول الايثيلي (ethanol)، وخلو نواتج المسارات الأيضية لمادتي السوربيتول (Sorbitol) والبروبيلين جليكول (Propylene glycol) عند تفاعلها مع الجسم من أي مواد لها تأثير مسكر قد يؤدي لفقدان العقل، بل علاوة على ذلك تعتبر مادة السوربيتول (Sorbitol) من المواد الموجودة بشكل طبيعي في الجسم.

وعلى ذلك لا ترى الهيئة العامة للغذاء والدواء أي تقييد لاستخدام السوربيتول (Sorbitol) والبروبيلين جليكول (Propylene glycol) كبدايل لمادة الكحول الايثيلي (ethanol) في المستحضرات الصيدلانية.

عنصر البوتاسيوم مستحضر صيدلاني أو مستحضر صحي

عنصر البوتاسيوم من العناصر المهمة في العمليات الحيوية في الجسم. فالبوتاسيوم له دور في توصيل النبضة العصبية وعمل العضلات والقلب والشرايين. وقد عملت الهيئات الدولية على تصنيفه كدواء أو مستحضر صحي بمعايير مختلفة اعتمادا على تركيزه بالمستحضر. ولكن ما دفع الهيئات العالمية إلى تصنيفه كدواء ومحاوله الحد من تداوله كمستحضر صحي على الرغم من وجود العديد من الدراسات تؤيد أمانية البوتاسيوم حتى بجرعات عالية هي اضطراب عضلة القلب والتي قد تؤدي إلى الموت المفاجئ عند وصول مستوى البوتاسيوم في الدم إلى مرحلة فرط البوتاسيوم في الدم والذي يسمى (hyperkalemia).

الهيئة العامة للغذاء والدواء تصدر تحذيراً عن مستحضر Tygacil® (Tigecycline)

قامت الهيئة العامة للغذاء والدواء بإعلام المختصين الصحيين عن حدوث زيادة في حالات الوفيات عند استخدام مستحضر Tygacil مقارنة بالمضادات الحيوية الأخرى عند استخدامه لعلاج نفس الأمراض المعدية، و شمل هذا التحذير احتمالية تزايد هذا الخطر عند استخدام المستحضر في إدعاءات طبية غير مصرح بها في المملكة العربية السعودية وهي كما يلي:

- العدوى الرئوية المكتسبة داخل المستشفى (Hospital Acquired Pneumonia).
- العدوى الرئوية المكتسبة من أجهزة التنفس الصناعي (Ventilator Associated Pneumonia).
- العدوى الرئوية المكتسبة خارج المستشفى (Community Acquired Pneumonia).
- أمراض القدم بسبب مرض السكري (Diabetic Foot).

مستحضر الترامادول والسياسات التنظيمية في الدول

مستحضر الترامادول هو أفيون صناعي يستخدم لعلاج حالات الألم ويخضع للرقابة تحت مجموعه المؤثرات العقلية في بعض الدول مثل المملكة العربية السعودية والسويد وغير خاضع للرقابة في بعض الدول الأخرى مثل الولايات المتحدة الأمريكية وأستراليا. فمستحضر الترامادول مرخص به للاستخدام بأكثر من 45 دولة، وقد كان الترخيص الأول لتداوله قد تم في ألمانيا عام 1977.

قد يحدث الإدمان الجسدي والنفسي لمستحضر الترامادول بجرعات ضمن النطاق الموصى به لعلاج الألم وحتى لفترات قصيرة قد تصل إلى أسبوع، ولكن قد يكون الفرق بسيط بين الجرعة التي تمنح الشعور بالشوة والجرعة المسببة للسمية مما يجعله من الأنواع الغير مفضلة للاستخدام عند كثير من المدمنين.

ومن جهة أخرى، قد يتسبب مستحضر الترامادول بأعراض إنسحابية نتيجة الانقطاع المفاجئ عن تناوله، والتي قد يكون أهمها: الشعور بالخوف، التهيج، العرق، وقلة التركيز، اتساع الحدقة، التقيؤ، الانقطاع البولي، زيادة ضغط الدم وارتفاع درجة حرارة الجسم، فهذه الأعراض قد تستمر لمدة ثلاث أيام وتنتهي بوقف تناوله، وذلك بسبب طبيعة المستقبل الدماغي الذي يعمل عليه هذا الدواء، بحيث يفقد حساسيته للدواء مما يتطلب من المدمن زيادة الجرعة ويستعيد عمله عند وقف تعاطيه، وغالبا ما يكون الدافع الرئيسي للمدمن باستخدام الدواء هو المحيط الاجتماعي الذي حوله أكثر من الدافع العضوي.

إن مستحضر الترامادول يتشابه مع كثير من مستحضرات مجموعة الأفيونات من ناحية قدرته على أحداث الإدمان وأما اختلاف إخضاعه من عدم إخضاعه للرقابة بين دول العالم هو نتيجة اختلاف السياسات التنظيمية والرقابية بين هذه الدول وليس اعتمادا على التأثير الذي يتسبب به المستحضر، ولذلك ينصح المركز الوطني لمعلومات الأدوية والسموم باستمرار إخضاع الترامادول للرقابة تحت مجموعه المؤثرات العقلية.

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