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SOME SYNTHETIC DRUGS USED IN KIDNEY DISEASES AND THEIR CHEMICAL COMPOSITION

Ibragim R. Askarov
Andijan State University, Professor of the Department of Chemistry, Doctor of Chemistry, Honored Inventor of Uzbekistan, Chairman of the TABOBAT Academy of Uzbekistan
https://orcid.org/0000-0003-1625-0330

Farhod S. Abdugapparov
Andijan State University, Associate Professor of the Department of Chemistry, Doctor of Philosophy in Chemistry (PhD)
https://orcid.org/0000-0002-4213-8396

Husnijamol B. Komilova
Andijan State University, Master student of the Department of Chemistry
https://orcid.org/0009-0004-6670-3187

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Abstract
The article describes some synthetic medicines used in kidney diseases and their chemical composition, the economics of the chemistry of goods, as well as recommendations on the classification of medicines based on them according to the nomenclature of goods of foreign economic activity. The proposed classification is based on the presence of heterocyclic derivatives of imidazole, quinoline, oxazole and other types, the main active ingredient of synthetic drugs.

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Kidney diseases include various pathologies caused by impaired urine production in the body, while many kidney diseases are asymptomatic [1]. Kidney diseases such as pyelonephritis, hydronephrosis, glomerulonephritis, nephropathy, nephrosclerosis, pyonephrosis, tubulopathy, urolithiasis, benign kidney tumors are increasing among the population every day [2]. The method of diagnosing the early stage of kidney disease is to determine the amount of albumin in the urine, which allows timely diagnosis of microalbuminuria [3]. In the treatment of kidney diseases, blood pressure is mainly taken into account [4].

The chemistry of goods, which is currently developing on a large scale, determines product codes in accordance with them based on the nomenclature of goods in foreign economic activity (TIF TIN) based on the chemical composition of the product [5]. This product code allows you to learn about the chemical composition of the product, the source of raw materials, the form of production, price, quality, and environmental safety. This makes it possible to increase the export of goods, as well as import processes in customs practice around the world [6].

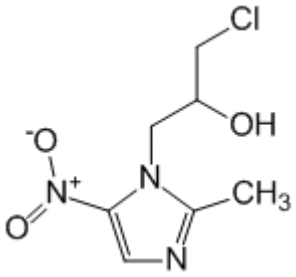
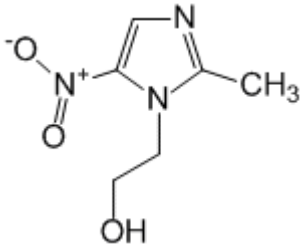
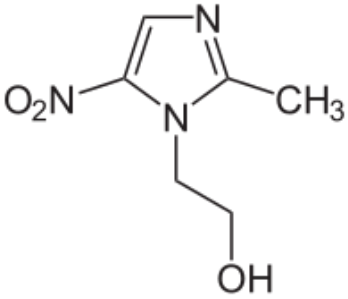
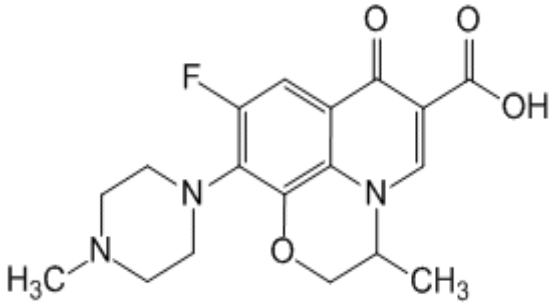
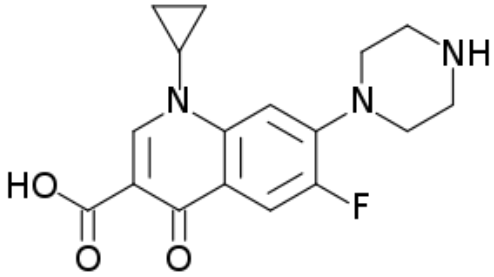
In the treatment of kidney diseases, drugs are used, the composition of which can be natural and synthetic, and in the treatment of diseases they are chosen depending on the clinical condition

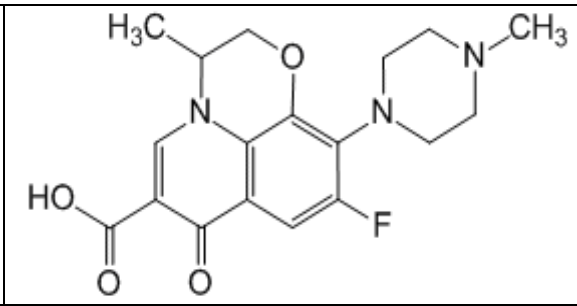
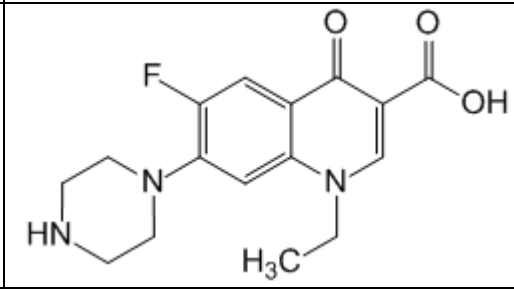
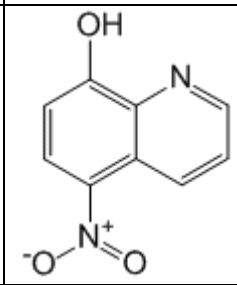
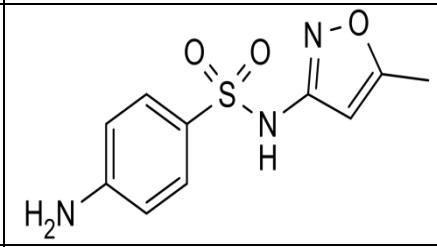
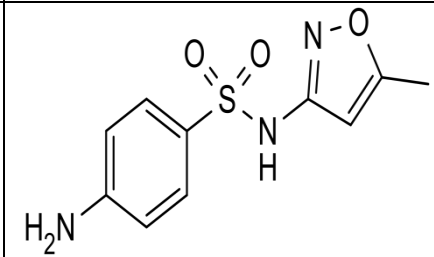
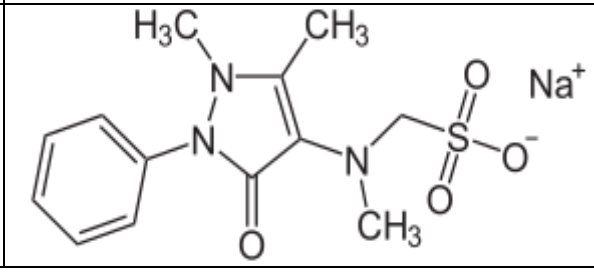
and type of disease, as well as the pharmacodynamics of drugs [7]. In medicine, diuretics, antispasmodics, antibacterial synthetic drugs are used in the treatment of kidney diseases.

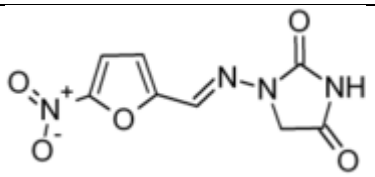
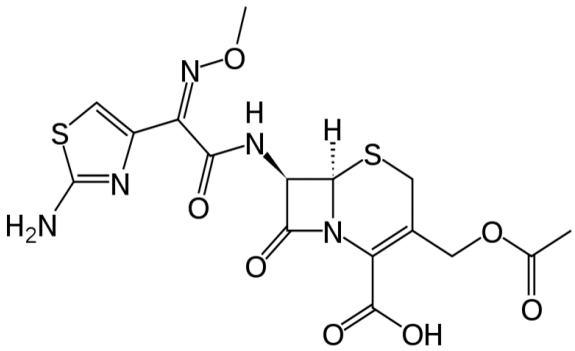
Currently, the treatment of kidney diseases includes Ornidazole [8], trichapol [9], metride [10], Oflox [11], cispres [12], Levofloxacin [13], nolysin [14], nitroxalin [15], Cefotaxime [16], Drugs such as Biseptol [17], Co-trimoxazole [18], Baralgin-LP [19], Furadonin [20] are used. We focused on the classification of synthetic drugs studied from our side, based on which group the main active ingredient belongs to. We recommended dividing these drugs into 4 classes.

Table 1.

Classification according to the chemical composition of the main active ingredients of drugs used in kidney diseases.

№	Class Name	Chemical formula	The structural formula
1	Drugs containing imidazole derivatives	$C_7H_{10}ClN_3O_3$ Ornidazole (Ornidazole)	
		$C_6H_9N_3O_3$ Metronidazole (Trichopol)	
		$C_6H_9N_3O_3$ Metronidazole (Merida)	
2	Medicines containing quinoline derivatives	$C_{18}H_{20}FN_3O_4$ Ofloxacin (Oflox)	
		$C_{17}H_{18}FN_3O_3$ ciprofloxacin (cispres)	

		$C_{18}H_{20}FN_3O_4$ Levofloxacin Semihydrate (Levofloxacin)	
		$C_{16}H_{18}FN_3O_3$ Norfloxacin (Nolitsin)	
		$C_9H_6N_2O_3$ 8-Hydroxyquinoline (Nitroxoline)	
3	Medicines containing isoxazole derivatives	$C_{10}H_{11}N_3O_3S$ Sulfamethoxazole (Biseptol)	
		$C_{10}H_{11}N_3O_3S$ Sulfamethoxazole (Co-trimoxazole)	
4	Medicines containing mixed nitrogenous heterocyclic substances	$C_{13}H_{16}N_3NaO_4S$ Sodium Metamizole (Baralgin-LP)	

		$C_6H_6N_4O_4$ Nitrofuran (Furadonin)	
		$C_{16}H_{17}N_5O_7S_2$ Cefotaxime	

We named the drugs used to treat kidney diseases, “drugs contained in imidazole derivatives”, “drugs contained in quinoline derivatives”, "drugs contained in Oxazole", "drugs contained in mixed nitrogenous heterocyclic substances". The above 4 groups of synthetic drugs have been classified according to their main ingredient because the body reacts to the main substance against diseases. We believe that such a classification of medicinal substances facilitates the development of commodity codes in the nomenclature of goods (TIF TIN) in foreign economic activity.

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