

## Prosidol - New high-effective Analgesic Agent

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The successful search for new high-effective agents for medicine is provided by simultaneous solving of the three problems: the availability of initial reagents, the simplicity of substance synthesis and its high specific activity along with low toxicity. Vinyl ether of monoethanolamine (VEMEA) produced at JSC "CARBIDE" (Karaganda) was the initial chemical for our investigation to synthesize new 1-(2-ethoxyethyl)piperidine derivatives possessing the different kinds of pharmacological activity. Among these substances analgesic PROSIDOL was launched into the commercial production and now it is used in medicine. The Institute of Chemical Sciences of MS-AS RK and The Novokuznetsk Scientific Research Chemical Pharmaceutical Institute, Russia had created PROSIDOL.

The technological scheme includes the following stages of reactions: a) hydrogenation of VEMEA on Ni-Re leads to ethoxyethylamine; b) the addition of 2 mol of methylmetacrylate to ethoxyethylamine with the following Dickman's cyclisation of diester in the presents of sodium methylate in toluene, then at the same time the hydrolysis and decarboxylation of 3-carbmetoxysubstituted piperidone-4 gives 1-(2-ethoxyethyl)-4-oxopiperidine (PROSIDOL KETONE); c) upon the effect of phenyl lithium upon the final piperidone I in diethyl ether in the media of argon lithium alcoholate is formed, hydrolysing of the latter leads to phenylic alcohol; d) under conditions of acylation of phenylpiperidole by the mixture of propionic anhydride and propionyl chloride 1-(2-ethoxyethyl)-4-phenyl-4-propioniloxypiperidine hydrochloride (PROSIDOL) is obtained.

On the base of this scheme the PROSIDOL Production Technology is elaborated. Moreover, there is the Prosidol Production Technology of Ready Drug Forms (ampoules, two kinds of pills). PROSIDOL is included in International List of the Used Drugs (1% aqueous solution, 1 ml ampoules; buccal pills (0,1 g) and pills (0,025 g).

PROSIDOL is used as analgesic drug in a case of traumas and diseases accompanied by painful syndrome. Clinical data state high effectiveness of the drug in CARDIOLOGY (specifically for acute form of infarcts myocardium), ONCOLOGY (specifically for treatment of chronic oncological disease in the terminal stage), TRAUMATOLOGY and SURGERY in the period prior to and after the operation. In contrast to morphine and promedol PROSIDOL practically does not influence breathing and blood pressure of patients in doses causing analgesic effect.

The buccal form of ROSIDOL displays the high effectiveness upon the medicinal testing in the 8 Specialised clinics on all in all 500 patients by the following characteristics: premeditation, as an analgesic component of general anaesthesia upon surgical operation, postoperative analgesia, pain upon burns, painful syndrome upon traumas as analgesic drug and diseases accompanied by pain.