

AD-779 596

TREATMENT OF PNEUMONIA WITH
OLEANDOMYCIN

E. S. Ryskina

Foreign Technology Division
Wright-Patterson Air Force Base, Ohio

22 April 1974

DISTRIBUTED BY:

NTIS

National Technical Information Service
U. S. DEPARTMENT OF COMMERCE
5285 Port Royal Road, Springfield Va. 22151

UNCLASSIFIED

Security Classification

DOCUMENT CONTROL DATA - R & D

AD 779 596

(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)

1. ORIGINATING ACTIVITY (Corporate author) Foreign Technology Division Air Force Systems Command U. S. Air Force		20. REPORT SECURITY CLASSIFICATION UNCLASSIFIED	
		23. GROUP	
3. REPORT TITLE TREATMENT OF PNEUMONIA WITH OLEANDOMYCIN			
4. DESCRIPTIVE NOTES (Type of report and inclusive dates) Translation			
5. AUTHOR(S) (First name, middle initial, last name) E. S. Ryskina			
6. REPORT DATE 4-5 June 1964	7a. TOTAL NO. OF PAGES 3	7b. NO. OF REFS 0	
8a. CONTRACT OR GRANT NO.		8b. ORIGINATOR'S REPORT NUMBER(S) FTD-HT-23-980-74	
8c. PROJECT NO.		8d. OTHER REPORT NO(S) (Any other numbers that may be assigned this report)	
8e.			
8f.			
9. DISTRIBUTION STATEMENT Approved for public release; distribution unlimited.			
11. SUPPLEMENTARY NOTES		12. SPONSORING MILITARY ACTIVITY Foreign Technology Division Wright-Patterson AFB, Ohio	
13. ABSTRACT 06			

EDITED TRANSLATION

FTD-HT-23-980-74

22 April 1974

TREATMENT OF PNEUMONIA WITH OLEANDOMYCIN

By: E. S. Ryskina

English pages: 3

Source: Leningrad. Nauchno-Issledovatel'skiy
Institut Antibiotikov. Materialy 2-Y
Konferentsii Molodykh Uchenykh
Leningradskogo Instituta Antibiotikov.
4-5 June 1964, pp. 70-72

Country of Origin: USSR

Translated by: Dean F. W. Koolbeck

Requester: FTD/PDTR

Approved for public release;
distribution unlimited.

THIS TRANSLATION IS A RENDITION OF THE ORIGINAL FOREIGN TEXT WITHOUT ANY ANALYTICAL OR EDITORIAL COMMENT. STATEMENTS OR THEORIES ADVOCATED OR IMPLIED ARE THOSE OF THE SOURCE AND DO NOT NECESSARILY REFLECT THE POSITION OR OPINION OF THE FOREIGN TECHNOLOGY DIVISION.

PREPARED BY:

TRANSLATION DIVISION
FOREIGN TECHNOLOGY DIVISION
WP-AFB, OHIO.

U. S. BOARD ON GEOGRAPHIC NAMES TRANSLITERATION SYSTEM

Block	Italic	Transliteration	Block	Italic	Transliteration
А а	<i>А а</i>	A, a	Р р	<i>Р р</i>	R, r
Б б	<i>Б б</i>	B, b	С с	<i>С с</i>	S, s
В в	<i>В в</i>	V, v	Т т	<i>Т т</i>	T, t
Г г	<i>Г г</i>	G, g	У у	<i>У у</i>	U, u
Д д	<i>Д д</i>	D, d	Ф ф	<i>Ф ф</i>	F, f
Е е	<i>Е е</i>	Ye, ye; E, e*	Х х	<i>Х х</i>	Kh, kh
Ж ж	<i>Ж ж</i>	Zh, zh	Ц ц	<i>Ц ц</i>	Ts, ts
З з	<i>З з</i>	Z, z	Ч ч	<i>Ч ч</i>	Ch, ch
И и	<i>И и</i>	I, i	Ш ш	<i>Ш ш</i>	Sh, sh
Й й	<i>Й й</i>	Y, y	Щ щ	<i>Щ щ</i>	Shch, shch
К к	<i>К к</i>	K, k	Ъ ъ	<i>Ъ ъ</i>	"
Л л	<i>Л л</i>	L, l	Ы ы	<i>Ы ы</i>	Y, y
М м	<i>М м</i>	M, m	Ь ь	<i>Ь ь</i>	'
Н н	<i>Н н</i>	N, n	Э э	<i>Э э</i>	E, e
О о	<i>О о</i>	O, o	Ю ю	<i>Ю ю</i>	Yu, yu
П п	<i>П п</i>	P, p	Я я	<i>Я я</i>	Ya, ya

* ye initially, after vowels, and after ъ, ь; e elsewhere.
 When written as ѣ in Russian, transliterate as yě or ě.
 The use of diacritical marks is preferred, but such marks
 may be omitted when expediency dictates.

TREATMENT OF PNEUMONIA WITH OLEANDOMYCIN

E. S. Ryskina
(Scientific Supervision by
Senior Scientific Colleague
A. M. Margolin)

In recent years the resistance of microbes to the most widely used antibiotics has grown significantly. Not infrequently an absence of clinical effect is noted when these antibiotics are used. Each new antibiotic expands our therapeutic capabilities, facilitates the battle with the appearance of resistant forms of microorganisms, and is of special value against resistance which has already appeared.

Oleandomycin is an antibiotic from the macrolide group. The oleandomycin producer is Streptomyces antibioticus. The spectrum of oleandomycin action was found to be similar to that of erythromycin. It is effective predominantly against gram-positive bacteria, certain gram-negative bacteria, large viruses, and rickettsiae. Oleandomycin activity is especially valuable with respect to pathogenic staphylococci which are resistant to the majority of antibiotics in use. Experimental study of oleandomycin showed the preparation to have low toxicity. Animal experiments established rapid absorption of oleandomycin with oral, intramuscular, and intravenous administration. A high concentration of

oleandomycin in the liver, gallbladder, lungs, and kidneys permitted the assumption that it would be effective against infections which localize in these organs.

The present observation touches on the application of the Soviet preparation of oleandomycin phosphate during treatment of pneumonia. We observed 100 patients, of which 78 had aggravated chronic pneumonia and 22 had acute pneumonia. The chronic pneumonia patients included 32 men and 46 women. The patients' ages ranged from 16 to 83 years. The majority of patients had suffered from chronic pneumonia for many years; only 20 patients showed a history of illness of five years or less. For the most part the patients had entered the hospital some 2-3 weeks after the beginning of aggravation. In the majority of patients profound organic changes were noted in the lungs. Oleandomycin therapy was directed with consideration of the sensitivity of sputum microflora. Dynamic research was conducted with 56 persons. Prior to the beginning of treatment a combination of Streptococcus viridans and Staphylococcus aureus predominated.

Oleandomycin was given in a dose of 250,000-500,000 units, four times per day. The duration of treatment was 7-10 days. Thus the overall dose was 7 to 20 million units. The treatment results were evaluated on the basis of a reduction in coughing and in the quantity of sputum, a reduction in physical changes in the lungs, and normalization of temperature, the blood picture, and X-ray data. Improvement was noted in 56 persons; 18 remained unchanged, while 4 showed aggravation and further progress of the disease. During treatment a change was noted in the microbial flora of the sputum. Most frequently this became a combination of Streptococcus viridans with the intestinal group; much more rarely Staphylococcus aureus was inoculated. Streptococcus viridans rapidly became resistant to oleandomycin.

In the cases of acute pneumonia oleandomycin was given to 22 patients, of which 15 received oleandomycin immediately after

admission to the hospital, while 7 were first treated with various antibiotics, with oleandomycin being prescribed in connection with retention of infiltration in the lung tissue, leukocytosis, and acceleration of the ESR. Improvement was noted in 17 persons, while there was no effect in 5 patients.

In the course of oleandomycin treatment no changes were observed in the cardiovascular system, liver, or kidneys. Eosinophilia was noted in the blood of 14 patients.

The patients withstood the oleandomycin well. In only a single case were we forced to drop oleandomycin, in connection with the appearance of urticaria. In one patient there was a single episode of vomiting while 7 showed minor stomach pains and increased frequency of stool. These phenomena did not provide a basis for terminating the treatment.

Conclusions

1. The Soviet preparation of oleandomycin phosphate gives a positive clinical effect in the treatment of pneumonia.

2. Application of oleandomycin in doses of 250,000-500,000 units four times a day is withstood well by the patients.

3. In connection with the rapid appearance of strains of microbes resistant to oleandomycin, it is desirable that it be prescribed after preliminary determination of the sensitivity of the sputum microflora and that it be considered a reserve [last-resort?] antibiotic.