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# The parallel from Dr. Anastasopoulos' Legend-Classificatory of Diseases Ancient Hospital of the Anchialos-Mesembria Hospital (1882-1883) to a contemporary European Short List of Disease Causes (2017)

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After the Liberation, the construction of public health is initiating, according to

"Temporarily Rules for the Structure of Medical Management in Bulgaria"

established on February 1, 1879 by the Russian imperial commissioner Prince Don–dukov–Korsakov. It is well known that the Russian doctors in the Russian military units and the Bulgarian Renaissance doctors with European education were the hubs and strategists of the hospital work in Bulgaria immediately after the Liberation. In Eastern Rumelia, the first hospitals to provide stationary assistance to the

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population are Russian military hospitals - the military medical service and the sanitary mission of the Russian Red Cross. It is also known (see, for example, [5]) that "... with the resolution of the hospital issue in the District, the Russian leaders of the Red Cross Company ... ... which help the establishment of the charity company "St. Panteleimon".

From the Statute of this Society (below, we apply - a facsimile from the Maritsa newspaper of May 20, 1879) it is understood that the Company provides activities in case of epidemics and other "people's disasters", the care of sick people of every nationality and religion in East Rumelia, as well as the construction of a sanitary section to support military and other hospitals. Draft Statute was signed by Bulgarian Exarch Joseph, Filippopol. Metropolitan Panaret, Dr. Stoyan Chomakov, I. Gruev, T. Kessyakov, St. Geshov, M. Maleev, Iv. Djidjev, M. Toromanov, H. Atanasov, H. G. Ilyuv, Hr. Lobanov, Luka Todorov, L. Karagyozov, Iv. Geshov, K. Peev, T. Blasokov, H. Vlasakov, M. Vlados, S. Antoniadi, At. Gumushcherdani, Ev. Geshov, Dr. Rashko Petrov, S. Kadal, Hr. Tilgarov, A. Taskov, Iv. Lilov, H. Djivozoglu, Iv. Gerdjikov, Iv. Alexandrov, S. Kableshkov and D. Argiriadis.

The first president was elected Dr. George Vylkovich, replaced in 1880 by Dr. Stoyan Chomakov. Among the founders are the names of the revivalists - Dr. Rashko Petrov and Dr. S. Antoniadi, whose biographies and activity as a "drujinen vrach" respectively of "Philippopolis Battalion No 2" and "Philippopolis Battalion No. 1" in the composition of the East-The Rumelian Militia in the period April - August 1879 we already introduced the readers [4], [3]. Following the withdrawal of the Russian occupation corps under the Berlin Treaty, around 200 Russian officers and 6 senior nurses remain in Bulgaria to help newly opened hospitals in Eastern Rumelia.

In [6] we find the following statement: "... In Plovdiv remains Margarita Smolnikova in Sliven was seconded Elena Cerkez in Burgas - Maria Dementieva, replaced by Lyudmila Medetska in Yambol - Seraphim Rulitska. ... The sisters worked on their distribution for only one year - from June 1, 1879 to June 1, 1880, after which they



Figure 1: Facsimile from the Maritsa newspaper from May 20, 1879

were taken back to Russia." The last sentence is subject to serious correction! We use the case to mention that, for example, Margarita Smolnikova resides in Plovdiv and is the services of the company "St. Panteleimon" at least to October 29, 1881!

This is apparent from a letter (outgoing No 10) to Alexander Exarch, in his capacity as chairman of the Plovdiv branch of the company, addressed to Dr. Rashko Petrov on October 28, 1881 (see [1], [2]) in which we literally read:

"The snow has come and we have to take measures to ensure that, when we fix the time, we put people in the barracks (for the sick). Money from the County Commission are already sent. I wrote to Mrs. Smolnikova to come to Sunday 29, 10 hours in hospital and given us the books and items that are in your hands, wherefore bring the receipt ...

With respect, I remain."

President: Alexander Exarch

Here's a look at open hospitals [5]:

Plovdiv - June 1, 1879;

Slivenska - 1879 (first manager Dr. Mirkovic, replaced by Dr. Planinski);

Burgas - June 14, 1879;

Yambol - 1 March 1879;

Karlovska - July 27, 1880 (first Governor Dr. Dagorov);

Tatar-Pazardzhik - 1880 (dr. Governor Dr. Grabowski);

Intimian - June 27, 1883;

Stara Zagora - 1883 (first manager Dr. Stojanovic)

In the large paper [4] we have applied and analyzed a rich sample of archive units (private archives) of the medical units to the military units - battalions of the Eastern Rumelian Militia, such as "Philippopolis Battalion No 1", "Philippopolis Battalion No. 2", "Kazanlak Drug No 4", "Eskizagarska group No 5", "Eskizagarska group No 6" and "Sliven brigade No 2" in the period April - August 1879.

The serious analysis of these documents gives us reason to assert that the archival work in the Militia formations was at its height, and

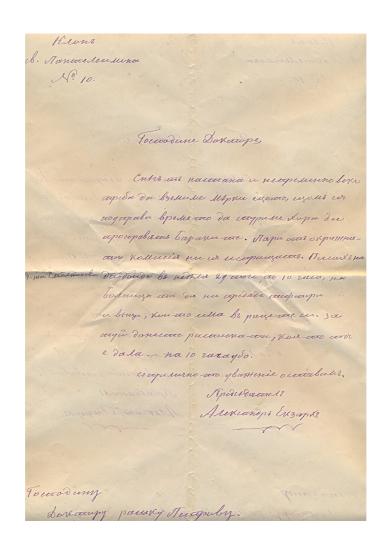


Figure 2: Letter from Alexander Exarch

this documentation was kept under all the orders of the Military Office, and we cannot in any way agree with ascertainments like - "There is no organization of documents in the archives in the officers' offices". Unfortunately, in the Bulgarian archives there are only episodic, already published documents on the subject. With what kind of pleasure we meet in more recent publications - findings and admiration regarding the annual reports of district doctors in 1910 to the Public Health Directorate and the perfect keeping of the required documentation (see [7]).

With the publication of this study, "Documentation in the Hospitals' Offices in Eastern Rumelia. Medical Statistics - Traditions and Reality. How to maintain and maintain the Archives of the Anchialos Hospital in Mesembria (January 1 - December 31, 1882)" we aim to prove that Eastern Rumelian doctors trained by their Russian colleagues apply practically everything learned, including Archival work.

We can talk about traditions in this respect, a brilliant example, to which is the attached report for 1882 by the local doctor Dr. Anastopoulos, which we apply in full.

The reader will probably agree with us that this serious statistical sample is a real find!

Comment on some data in the annual report:

In the Anchialos-Mesembria Hospital, between January 1 and December 31, 1882, 1419 patients were admitted to treatment (AD).

Of these, 1229 were cured (E); dead (D) - 122; Left for additional treatment (R) - 68 people.

It is noteworthy that patients are taken not only from Anchialos and Mesembria, but also from many settlements as follows (see Table 1).

Obviously, in 1882 the population was served by a relatively large region.

The report contains information about the patients from each of the listed settlements and a medical diagnosis in Bulgarian and Greek.



Figure 3: Archival documents of Anchialos Hospital in Mesembria (January 1 - December 31, 1882) - private archive.

The last page of the table is checked and stamped with a rubber swab (in green) at the hospital.

The signature of Dr. Anastasopoulos - probably the district doctor of the Anchialos-Mesembria hospital - was at least on January 15, 1883 (his report is from that date).

Interest in the subject is the statistics of the diseases that led to a fatal outcome. These statistics can be made thanks to the extremely precise information contained in the reference table.

Here's the list of diseases that led to a dead end. We will explicitly note that the author is not competent for medical issues and below, we place the diagnoses made by the district doctor as we have them.

It is noteworthy that 122 people have been treated with "jumping fever" and only 3 have died; of "dysentery" - 39, not dead; From "Ilara" 432 people, but died 11; From syphilis - 3 people, not dead. The statistics that can be extracted in favor of healing in the first years after the Liberation are diverse.

Obviously, the Bulgarian public health, underpinned by Russian

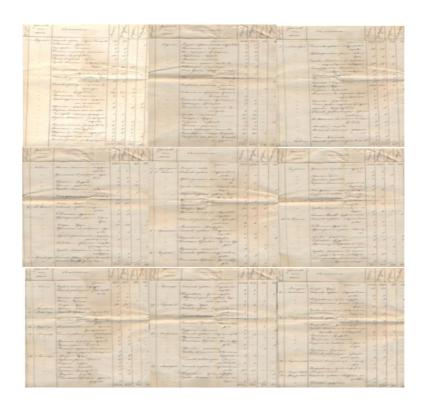


Figure 4: Tables for Examined Patients and Statistics - continuation.

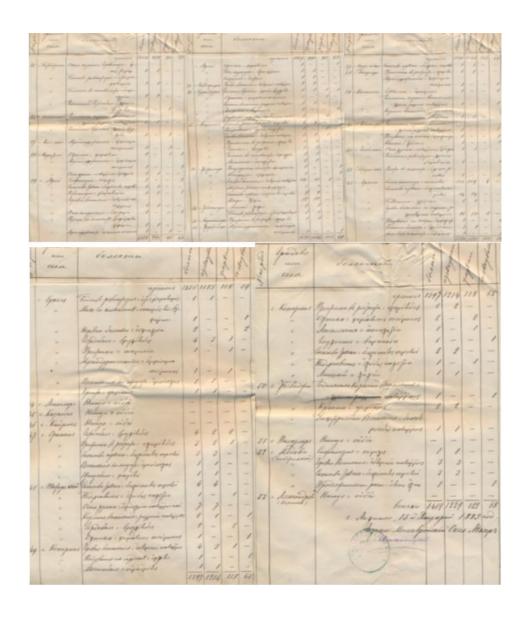


Figure 5: Tables for Examined Patients and Statistics - continuation.

Ravda	Ay - V lasii	Krushla - derek
Fondukliy	Emona	Eraklion
Goecken	Eni-Koye	Bana
Great Basha	Achaik-dere	Kuru-dere
Denisler	Guller	Barracle
Indje-koy	Aliccaria	The skeptic
Davutle	Giurgen-Koye	Emir-koy
Arnaut - Koye	Batadzik	Osman-koy
Kos - koyo	Karatepe	Ahhliy
Chavdarak	Burunjuk	Karagach
Hoxamar	Heedalar	Karamanda
Harami-dere	Isaf-choban	Nadardar
Calgamach	Kedicler	Chelebi-koi
Juma - koy	Erkech	Lanachary
Casaluk	Kayak	Orman
Tatar - koy	Copan	Helvadji
Palazlar	Medovo(Boegji-koyu)	Alexandrovo

Table 1:

land health care, is starting to strengthen its position. We are convinced that the documentary evidence analyzed here would be extremely useful for today's specialists who are working on a much more general subject:

"The medical section in the army, sanitation, and government in East Rumelia. First steps in the development of public health."""

The parallel - from "Legend - Classification of Disease" of Dr. Anastasopoulos - district doctor of Anchialos-Mesembria Hospital (1883) to contemporary European condensed list of causes of death (2017)

The National Statistical Institute website regularly publishes modern tables for:

Diagnosis	Death(number)
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	32
Stomach cancer	1
Godinyasal gardobol	23
Prostinka + cough	13
Ohtica	16
Braininflam mation	2
Apoplexy	3
Fever	1
Oldageweakness	1
$Wounds\left(various\right)$	4
Ilara	11
Respiratory failure	3
Disability	4
$Eye\ cancer$	1
?Elderly Marasm?	1
Jogging  fever	3

Table 2:

"The life expectancy of the population by gender and age in the case of exclusion of the main classes of causes Death - by years";

" Probability of dying population by gender and age by major causes of death, etc."

The data in such tables are usually obtained within the framework of targeted statistical observations on the development of risks and after a thorough processing of the collected facts and in combination with other strands of statistics such as demographic statistics.

Here's what a modern European shortened list of classes of causes for dying (2017) looks like:

European shortlist:

Class I. Some infectious and parasitic diseases

Class II. Novelties

Class III. Diseases of blood, haematopoietic organs and individual disorders, incl. the immune mechanism

Class IV. Endocrine system diseases, nutrition disorders and metabolism

Class V. Psychiatric and behavioral disorders

Class VI. Diseases of the nervous system

Class IX. Diseases of the organs of blood circulation

Class X. Diseases of the respiratory system

Class XI. Diseases of the digestive system

Class XIV. Diseases of the genitourinary system

Class XVI. Some conditions occurring during the perinatal period

Class XVII. Congenital anomalies (developmental defects), deformations and chromosome aberrations

Class XVIII. Symptoms, signs and abnormalities, not elsewhere classified

Class XX. External causes of morbidity and mortality

Here's what the Disease List looks like - "Legend" by Dr. Anasta-sopoulos - district doctor at the Anchialos-Mesembria Hospital (1883): LEGEND:

I. Diseases of the gastrointestinal tract;

II. Otitis (tuberculosis);

III. "Godinyasal gardobol"

IV. "Skokly fever"

V. Apoplexy + brain inflammation;

VI. "Ilara";

VII. "Prostinka" + cough;

VIII. "Dizenterichesko inflammation";

IX. Syphilis;

X. Respiratory failure;

XI. Scabies, lichens, scabs on the skin and head;

XII. Eyelid fever;

XIII. Nervous diseases, hysteria;

XIV. Uterine inflammation;

XV. Thick rheumatism;

XVI. Urinary-excretory system, sands;

	Populatio	n of urban	type	Populatio	n of rural ty	rpe .
No class.	Prob.	Prob. Death.	Prob. Treatmen t	Prob.	Prob. Death.	Prob. Treatment
I	0.855855	0.144144		0.755813	0.186046	0.046511
II	0	0.545454	0.454545	0	0.769230	0.230769
III	0.722222	0.277777		0.451612	0.419354	0.129032
IV	1	0	15	0.933333	0.066666	
V	0.666666	0.333333		0.500000	0.500000	3
VI	0.989690	0.010309		0.962184	0.037815	
VII	0.928571	0.071428		0.924812	0.075187	
VIII	1	0		1	0	
IX	1	0		1	0	
Χ	0	0	1	0	0.600000	0.400000

Figure 6:

XVII. Others

A little clarification.

The doctor often uses the terms "godinyasal gardobol", "godinyasal mochebol", "godinyasli abdominal wounds", etc. in the sense of chronic - chronic diseases, respectively.

The illness Ilara, which the Revivalist doctor writes in the diaries, is the Greek name of the disease, the commonwealth (measles or measles ...). From his detailed report, the epidemiological occurrence of the disease in the area - as we have already mentioned - 432 patients received for treatment.

In all likelihood, unfortunately, 11 patients died as a result of complications. We will try to update the data that we have available 133 years ago in the light of the National Statistics Institute's adopted statistics.

For example, Table 3 lists the probabilities for curing, dying and continuing treatment for part of the Legend-Classificatory of Diseases I-XVII in the 1882 year in the Anchialos-Mesembria Hospital (January 1 - December 31, 1882).

These data are for urban population (Anchialos and Mesembria)

and rural type (see populated places in Table 1 - 51) respectively.

Note 1. I do not know all the populated areas of the Anchialos-Mesembria region of Burgas district. Moreover, only in the period 1880-1884 a number of settlements cross the districts of the same county. As is to be expected, tuberculosis is undoubtedly the most deadly disease - with the largest share of total mortality. In particular, pulmonary tuberculosis (OCHA) takes the major percentage of the victims. In Table 4 we give the data on the number of inhabitants of the Burgas County by district according to the census in Eastern Rumelia in 1883-1884 (see [8], Annual Statistics for Eastern Rumelia in 1883, Finance Directorate, Statistical Office, Plovdiv, 1883 as well as for the census as of 31.12.1884).

Note 2. Several researchers and statisticians question some of the official statistics from the Eastern Rumelia census in 1880. Specifically, the data about the Anchialos region is of interest (see, for example, [9] I. Balev, "Unrecognized" censuses in the history of Bulgarian statistics, Statistics, issue 2, 2014).

Typically, urban doctors rely too much on updating population data (by gender and age), dead, born, etc. This is evidenced by Fund No 70K of the City Municipal Council - Burgas, archive unit No 290 from Section: "Sanitary Works" [10]:

**290.** Correspondence with the city doctor for the number of the population, dead and born in the city in 1881 Manuscript - January 8 - October 4, 1882 (in Greek and Turkish)

Obviously, similar instructions and files were also handled by district doctors. We owe them impeccable paperwork in the offices of the Eastern Rumelia hospitals. Our Dear Peoples! Thanks to their data can point the mortality rate, for example for Anchialos district as fraction:

122 (dead): 21462 (population) = 0.005684 or 5.6% per thousand people for the region!

Of particular interest is the relative share of cured, survivors and patients left to be treated in addition to the total number of those

# ОБЩИ РЕЗУЛТАТИ

# ПРВБРОЯВАНИЕ НА НАСЕЛЕНИЕТО

ЮЖНА БЪЛГАРИЯ

(ИСТОЧНА РУМЕЛИЯ)

НА 1885 ЯНУАРИЙ 1.

PRINCIPAUTÉ DE BULGARIE - BUREAU DE STATISTIQUE.

# RESULTATS GÉNÉRAUX

# RECENSEMENT DE LA POPULATION

BULGARIE DE SÛD

Figure 7: Facsimile from the Census of Southern Bulgaria, January 1, 1885, Bulgarian Principality, Statistical Office.

Table 4

Burgas C	ounty
Surrounding	Residents
Burgas	34288
Anchialos-Mesembria	21462
Karnobat	30722
Aitoska	25313

Figure 8:

редъ	и околиить	Immeubles (maisons, magasins) ete			нства	SEXE		
. A₹ 110		Кжщи maisons	Дюгени и мазэн magasin.	Вепчко Total	Донакпиства Ménages	Mazen Sexe Masculin	Женски Sexe Féminin	Всичко Тоtal
1	. 2	3	4	5	6	7	8	9
1	Пловдивска	8523	2095	10618	10173	27132	23644	55776
2	Конушка	7190	730	7920	8016	20744	19541	40285
3	Странска	9970	817	10787	10385	23240	24546	47786
4	Овче-Хълиска	5731	234	5965	5780	16145	16428	32578
5	Сърнено-Горска	6187	182	6369	6239	16838	17176	34014
6	Рупчоска	3750	. 56	3806	4327	9499		20821
-	Всичко за Пловдивский Окр.	41,351	4,114	45.465	44,926	113,598	112,657	226,255
7	ТПазарджиска	7981	1241	9222	8883	24304	23489	47793
8	Нещерска	5472	393	5865	6051	15344	15003	30347
9	Нацагюрска	4943		5229	5301		13468	26581
10	Ихтиманска	4678	446	5124	4933	13730		27054
1	Вепчко за ТПазард. Окржгъ	23,074	2,366	25,440	25,168	66,491	65,284	131,77
11	Хасковска	10249	. 831	11080	10464	28375	26997	55372
12	Хаджи-Елесска	5342	186	5528	5470			29357
13	Харманлийска	6762		7179				37366
14	Ккрджалийска	5843	57	5900	6637			32350
1	Всичко за Хесковский Окр.	28,196		29,687	29,504			154,44
15	Старо-Загорска	7664	960	8624	. 9071	22022	21918	4394
16	Кызандынска	10846	742	11588	11453		40 000000000000000000000000000000000000	5038
17	Чирианска	7773		8413	7942			4429
18	Ново-Загорска	6457	208	6665	7.00		100 100 100 100 100 100 100 100 100 100	3409
19	Сейменска	3860		3988		10		2172
	Венчко за СтЗагорекий Окр.	36,600		39,278				194,44
20	Сливенска	6992	828	7820	8249	19354	18746	3810
21	Яжболека	5653		6232	6096			3320
22	Кжаклъ-Агачска	5623	( TO 10 TO 1	5903				3212
23	Каваклийска	5774	E	6086		11	7.7.5.5.	3445
24	Котленска	3950				III		1845
	Всичко за Сливенский Окр.	27,992		30,269	30,396			156,32
25	Бургазека	6699	815	7214	100000			
26	Анхиолека	4043			1200000000	11		3428
27	Карнабадска	5140		0.000000		9		2146
28	Айтоска	3632	1	3829				3072
-0	Венкко за Бургазекий Окрасъ							25313
			2,500		20,011	. 30,39	00,940	111,10
- 3	Венчко за цълата Область	176,727	14,791	191,518	190.017	492,545	482.485	975.03

Figure 9:

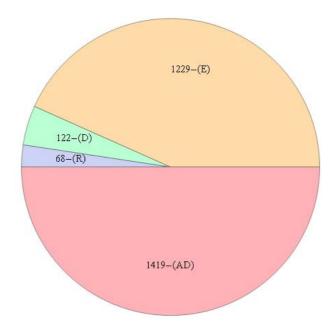


Figure 10: Relative part of healed-signed out from a hospital; Died and left for additional treatment to the total number of those treated

treated for treatment in the Anchialos - Mesembria Hospital (January 1 - December 31, 1882).

Regarding these statistics - see given illustration in Figure 10.

Interest in the specialists is represented by the relative share of the diseases according to the "Classification of Diseases" I - XVII in early 1882 in the Anchialos-Mesembria hospital (January 1 - December 31, 1882).

Regarding these statistics - see given illustration in Figure 11.

It is assumed that lethality is the ratio between the number of deaths of a given disease (or group of illnesses) and the total number of patients suffering from the same disease (group of diseases) - cf. for example [11]: Health 2014, National Statistical Institute, Sofia, 2015. The result is usually expressed as percentages.

Hospital lethality is defined as the ratio between the number of

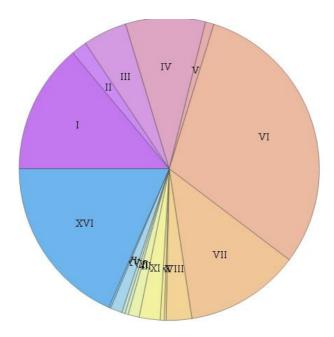


Figure 11: Disease ratio according to the "Disease Classifier" I-XVII in the early  $1882\,$ 

Sick in previous	They have		They died	Remaining
period (SPP)	arrived (THA)	Exited (E)	(TD)	(R)
726	1052	960	72	746

Figure 12:

deaths in the hospital and the number of patients left (written off and dead).

From the data we have described and analyzed, we can conclude that the hospital lethality of the Anchialos-Mesembria hospital (January 1 - December 31, 1882) is:

122: (1229 + 122) = 0.090303 or approximately: 9%.

Unfortunately, the archival units of the Anchialos-Mesembria hospital analyzed by us do not contain data on the gender and age of the patients and we are unable to offer up-to-date statistics on the probability of dying population in the region by gender and age according to the main accepted classes of causes for dying, etc.

**Application.** A parallel with the statistics on movement of patients in government hospitals in the Principality. Below is a list of sick people's movement from February 1880 (see State Gazette, issue 46 of May 31, 1880):

From the data we have described shows that hospital mortality government hospitals of the Principality (February 1880) is:

72: 
$$(960 + 72) = 0.07$$
 or  $7\%$ 

And comparing it with the b. l. of Anchialos-Mesembria hospital in 1882 - 9 %, we can conclude that our Renaissance doctors (many of which have completed their education abroad) and working in the hospital together of Eastern Rumelia implemented at least the same treatments used by their counterparts in the Principality!

Diagnosis (predominant)	On standing (number)		
Bronchitus acute	183		
Pneumonia	163		
Febris intermittens	138		
Syphilis	135		
Blennorrhagica	80		
Vulnera vary	70		
Rheumatism	53		
Typhus abdominal	37		

Figure 13:

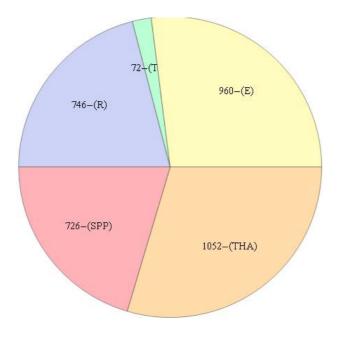


Figure 14: Relative part of healed-signed out from a hospital; Died and left for additional treatment to the total number of treated patients (including patients from a previous period)

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