



Medical Statistics from Hospitals Establishments of Subdivisions of Military Troops from Composition of the Eastern Rumelian Militias, 1879. General Notes

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Abstract. We note that the first official census in Eastern Rumelia, dates from 1884 and official statistics (including medical statistics) was born much later. In this sense, we hope that our research related to the study of basic classes of diseases medications for treating them and most importantly - the application of modern methods of analysis and statistics regarding frequency of disease, relative share of diseases hospital mortality and others for hospitals, subject to the Eastern Rumelian Militias (May -July 1879) may be useful for researchers working on these still not sufficiently researched topics "Health in Eastern Rumelia. Medical statistics".

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The material covered in this note is based on the monograph [4]. The authentic documentary material (private archive), which we have is associated with the following battalions in the Eastern Rumelian Militias: "Philippopolis Battalion No 1", "Philippopolis Battalion No 2", "Eskizagarska Battalion No 5", "Eskizagarska Battalion No 6", "Kazanluk Battalion No 4", "Haskovo Battalion No 10", "Sliven Brigade No 2" and some other subdivisions between May and July 1879.

More precisely, thanks to this archive stored in the period from 1 May to 1 August 1879, we learn very valuable information about number of employees; summary of died, wounded and sick from battalion; battle worthy composition; a detailed report on all medicines and medicaments used to treat military desks; information about the shortage of necessary medicines to battalion pharmacies; reports of epidemics occurring (in the army and among civilian population); a list of "reservists" into battalion; data transfer patients in need in other curative restaurants (in specific case from "Philippopolis Battalion No 2" in "Eskizagarska Battalion No 5"); contents of normative documents - ten days, monthly and other reports of "druzhinen vrach", intended for the "senior vrach" of the Eastern Rumelian Militias; contents of reports to "Medical occupation management".

Here we will only analyze newly discovered archive units, which highlight unexpected moments associated with compilation, archiving and moving of the mandatory documents and materials between "druzhinen vrach", "corpus vrach" and "senior vrach" of the Eastern Rumelian Militias.

These documents are related to generalizing information on the dead, the wounded and the sick (including cured or left for additional treatment in hospital establishments of Eastern Rumelian Militias.

Discovered data on treatment, detailed report of all the medicines and medications used for treatment of the military ranks of mentioned above formations, as well as information on the lack of necessary medicines have encouraged us to conduct further analysis and medical statistics.

1. Archival documents of "druzhinen vrach" of "Philippopolis Bat-

talion No 2" of the Eastern Rumelian Militias. Titular Dr. Rashko Petrov

1.1 Set of documents - a "monthly report" of a "druzhinen vrach" - Dr. Rashko Petrov to the "senior vrach" of the Eastern Rumelian Militias for May 1879, outgoing No 66 of June 2, 1879;

1.2 Set of documents - a "monthly report" of a "druzhinen vrach" - Dr. Rashko Petrov to the "senior vrach" of the Eastern Rumelian Militias for June, 1879, Outgoing No 72 of 6 July 1879;

1.3 Set of Documents - "Monthly Report" to "Company Vrach"- Dr. Rashko Petrov to the "senior sparrow" of the Eastern Rumelian Militias for July, 1879, outgoing No 79 of August 4, 1879.

From the archive units 1.2 we can find out information about the most common illnesses and traumas in the period May 11 - May 21, 1879, which are listed in a meticulously graded and shaped table

I. traumas;

II. venereal diseases;

III. eye inflammation;

IV. weakness (from "hard work");

V. inflammation of the respiratory organs;

VI. pulmonary diseases;

VII. colds;

VIII. rapid death (heat stroke);

IX. other diseases;

X. gastrointestinal diseases;

XI. toothache;

XII. "Vozvratnoy" typhoid

as well detailed information is given - in what state they are arrived, from where, healed, left for treatment and another information, such as for additional treatment in hospitals, infirmary of other battalions from Eastern Rumelia Militias, ambulatory and others.

Very interesting is the report - payroll quantities of quinine for treatment of infected patients in battalion, as well as statistics on the average number of consumption for each rank - 15 1/4 grana.


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PieChart[{Labeled[56, "56-(R)"], Labeled[2, "2-(D)"],  
Labeled[334, "334-(E)"], Labeled[392, "392-(AD)"]}]
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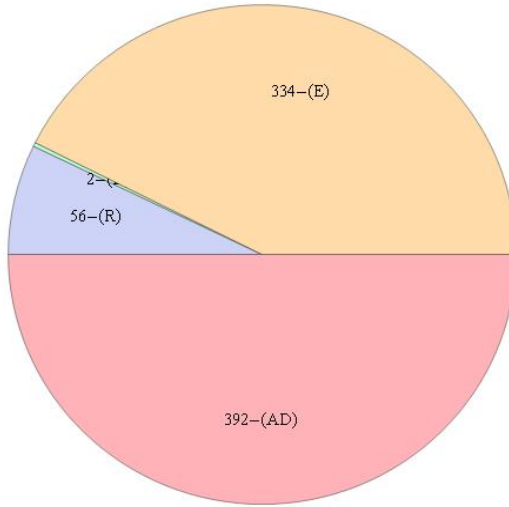


Figure 2: Relative part of healed-signed out from a hospital; Died and left for additional treatment to the total number of those treated

It is noticeable that the medical authorities have a lot requirements on this subject and require from battalion doctors accurate information - about what diseases they are consuming these and other drugs in the Militias.

Comment on some data in the annual report: In the hospital structures of the "Philippopolis Battalion No 2", between May 1 and July 30, 1879, 392 patients were admitted to treatment (AD).

Of these, 334 were cured (E); dead (D) - 2; left for additional treatment (R) - 56 people.

Especially interest for professionals represents the relative share of cured - inscribed, dead and left for the additional treatment patients compared to the total number of treated patients in hospital structures

of the "Philippopolis Battalion No 2".

Regarding these statistics - see the illustration.

The diagram given here is realized with the help of described operator in the Mathematica program environment.

Of course, the reader can also use other software tools from the cited environment.

2. Archival documents of "druzhinen vrach" of "Philippopolis Battalion No 1" of the Eastern Rumelian Militias - Dr. S. Antoniadi. Medical statistics

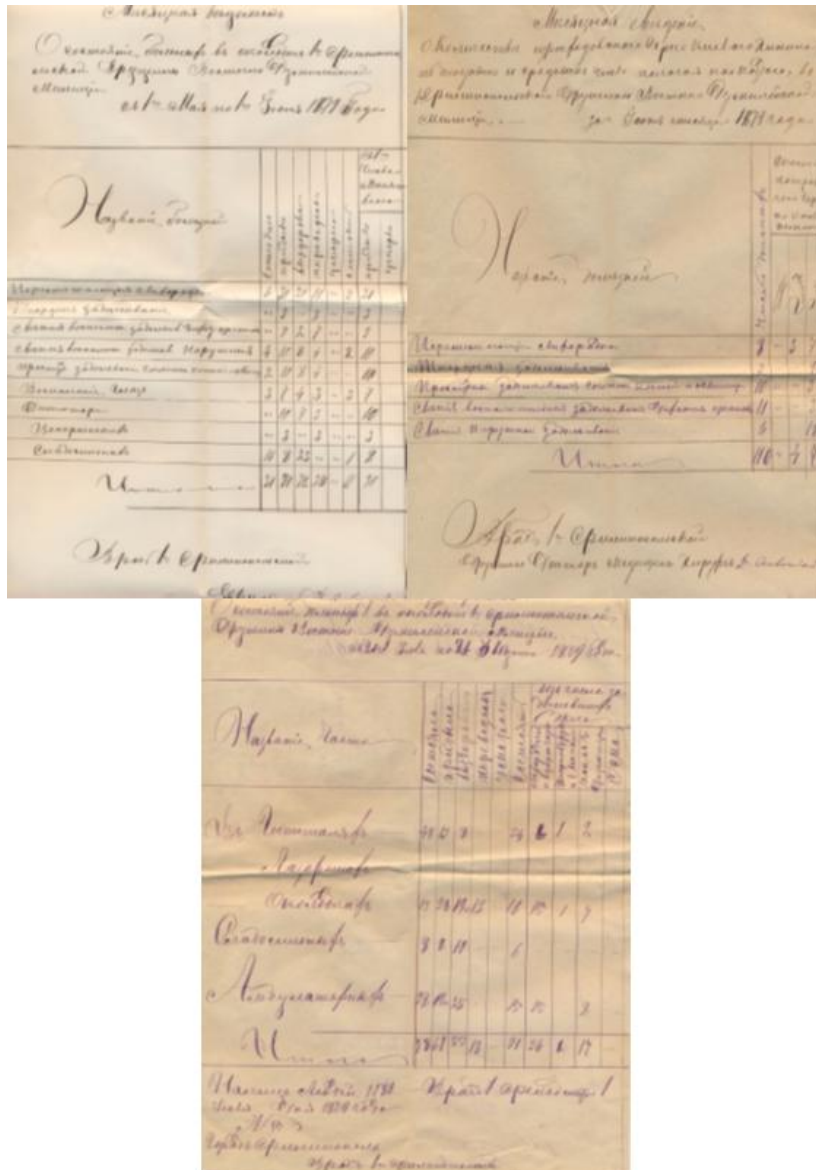
2.1 Set of documents - a "monthly report" of a "druzhinen vrach" - Dr. Antoniadi to the "senior vrach" of the Eastern Rumelian Militias for May 1879. Outgoing No 70 of June 1, 1879;

2.2 Set of documents - a "monthly report" of a "druzhinen vrach" - Dr. Antoniadi to the "senior vrach" of the Eastern Rumelian Militias for June, 1879. Outgoing No ???;

2.3 Set of Documents - a "monthly report" of a "druzhinen vrach" - Dr. Antoniadi to the "senior sprite" of the Eastern Rumelian Militias for July (1 - 11), 1879. Outgoing No 73 of July 1879.

Comment on some data in the annual report: In the hospital structures of the "Philippopolis Battalion No 1" between May 1 and July 11, 1879, 261 patients were admitted to Treatment (AD).

Of these, 197 were cured (E); dead (D) - 0; left for additional treatment (R) - 64 people.



References for May – July (11), 1879

Figure 3:

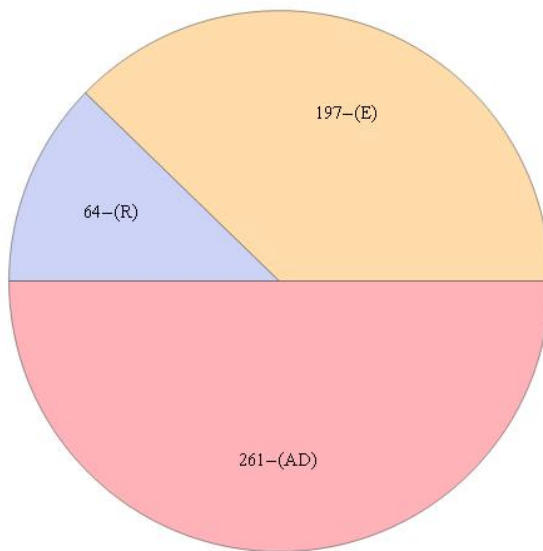


Figure 4: Relative part of healed-signed out from a hospital; Died and left for additional treatment to the total number of those treated

3. Archival documents of the "druzhinen vrach" of Kazanluk Battalion No 4" of the Eastern Rumelian Militias. Titular Dr. T. Stojanovic. Medical statistics

3.1 Set of documents - a "monthly report" of a "druzhinen vrach" - Dr. T. Stojanovic to a "senior vrach" of the Eastern Rumelian Militias for May 1879. Outgoing No 60 of June 1, 1879;

3.2 List of diseases for which quantities of quinine are used to May, 1879.

3.3 Report of "druzhinen vrach" - Dr. T. Stojanovic to "senior vrach" of the Eastern Rumelian Militias for lack of medications and quinine. Outgoing No 49 from May 11, 1879;

3.4 Set of documents - a "ten-day report" of "druzhinen vrach" - Dr. T. Stojanovic to "senior vrach" of The Eastern Rumelian Militias for the period June 1 to June 11, 1879. Outgoing No 77 of June 1879.

Some notes. From the applied archive units we learn that the main diseases for May, 1879 are:

"dysentery"

"inflammation of the respiratory organs";

"injuries";

"wounds from a cool weapon";

"typhoid diseases";

"venereal diseases";

"contagious" sore eyes.

Detailed is the list of diseases for which they are used and consumed quantities of quinine as follows: "typhoid", "bronchitis", "pneumonia". It is noteworthy that there is a special column dedicated to "quinine given for treatment of citizens - at home". The number is mentioned - 64 people (only for May) and this is disturbing. Dr. T. Stojanovic mentions "bryushnoi typhoid" and one which died. Obviously, in May 1879, some of the drugs in the Militias's battalions are running out. They are not enough to treat in the lazarettos -

| Mareković | | Družinskih Pomoćnik | |
|---|-----|--|---|
| <p>Opis bolesti u glavi i drugim delovima tela, uzrok lečenja, vreme trajanja i količina uzeta. Upravo se koristi 1979.</p> | | <p>Opis bolesti, u glavi i drugim delovima tela, uzrok lečenja, vreme trajanja i količina uzeta. Upravo se koristi 1979.</p> | |
| <p>Mareković</p> | | <p>Kostanić</p> | |
| 1. Tuma - glavobolja, mučnina | 1 | 1. Tuma - glavobolja, mučnina | 1 |
| 2. Mareković - glavobolja | 1.5 | 2. Mareković - glavobolja | 2 |
| 3. Mareković - glavobolja | 1 | 3. Mareković - glavobolja | 1 |
| 4. Mareković - glavobolja | 1 | 4. Mareković - glavobolja | 1 |
| 5. Mareković - glavobolja | 1 | 5. Mareković - glavobolja | 1 |
| 6. Mareković - glavobolja | 1 | 6. Mareković - glavobolja | 1 |
| 7. Mareković - glavobolja | 1 | 7. Mareković - glavobolja | 1 |
| 8. Mareković - glavobolja | 1 | 8. Mareković - glavobolja | 1 |
| 9. Mareković - glavobolja | 1 | 9. Mareković - glavobolja | 1 |
| 10. Mareković - glavobolja | 1 | 10. Mareković - glavobolja | 1 |
| 11. Mareković - glavobolja | 1 | 11. Mareković - glavobolja | 1 |
| 1. Mese 1879. 11. | | 1. Mese 1879. 11. | |
| M. J. Stojanović | | M. J. Stojanović | |

References for May and June (1 - 11), 1879

| Candarić | | Spre | |
|---|---|---|---|
| <p>Opis bolesti u glavi i drugim delovima tela, uzrok lečenja, vreme trajanja i količina uzeta. Upravo se koristi 1979.</p> | | <p>Opis bolesti u glavi i drugim delovima tela, uzrok lečenja, vreme trajanja i količina uzeta. Upravo se koristi 1979.</p> | |
| <p>Candarić</p> | | <p>Spre</p> | |
| 1. Candarić - glavobolja | 1 | 1. Spre - glavobolja | 1 |
| 2. Candarić - glavobolja | 1 | 2. Spre - glavobolja | 1 |
| 3. Candarić - glavobolja | 1 | 3. Spre - glavobolja | 1 |
| 4. Candarić - glavobolja | 1 | 4. Spre - glavobolja | 1 |
| 5. Candarić - glavobolja | 1 | 5. Spre - glavobolja | 1 |
| 6. Candarić - glavobolja | 1 | 6. Spre - glavobolja | 1 |
| 7. Candarić - glavobolja | 1 | 7. Spre - glavobolja | 1 |
| 8. Candarić - glavobolja | 1 | 8. Spre - glavobolja | 1 |
| 9. Candarić - glavobolja | 1 | 9. Spre - glavobolja | 1 |
| 10. Candarić - glavobolja | 1 | 10. Spre - glavobolja | 1 |
| 11. Candarić - glavobolja | 1 | 11. Spre - glavobolja | 1 |
| 1. Mese 1879. 11. | | 1. Mese 1879. 11. | |
| M. J. Stojanović | | M. J. Stojanović | |

a) List of diseases in which they are used quantities of quinine used to May, 1879; b) Report of "druzhinen vrach" - Dr. T. Stojanovic to "senior vrach" of the Eastern Rumelian Militias for lack of medications and quinine

Figure 5:

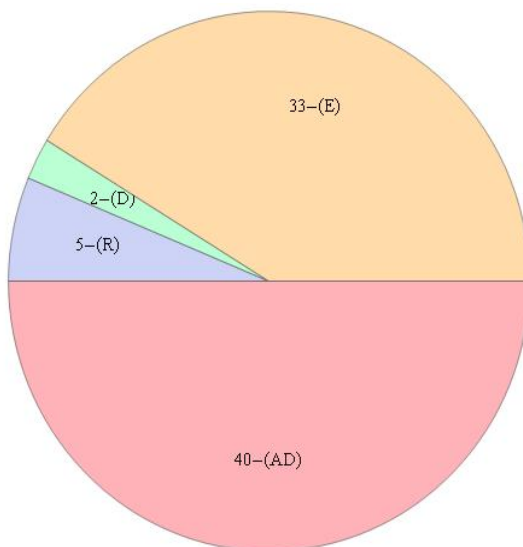


Figure 6: Relative part of healed-signed out from a hospital; Died and left for additional treatment to the total number of those treated

fever, typhoid, venereal diseases, bronchitis, pneumonia, conjunctivitis and other diseases. The allocated funds allocated to the battalion commanders are shrouded for "economic" reasons, as is the case in the report by Dr. T. Stojanovic. It is well known that gradually the military infirmary begin also to heal civilian population and lack of important medications worry battalion physicians. Dr. Stojanovic's report is essential - whether in "Kazanluk Battalion No 4" and the area symptoms of typhus epidemics and typhoid infections as well and complications from "inflamed lymphatic zhlez" are observed. The answer is negative, in the sense that neither in Lazaretto nor in the private practice of Dr. Stojanovic not noticed tendency for an epidemic. From reporters and other company doctors in army divisions of the Eastern Rumelian Militias, which we traced and analyzed for the months of May - June 1879 there were episodic cases.

This, however, worries the medical authorities towards Interim Russian government. They have not forgotten the severe epidemics

in 1878 and worries are natural! Comment on some data in the annual report: In the hospital structures of "Kazanluk battalion No 4" between May 1 and July, 30 1879, 40 patients were admitted to treatment (AD). Of these, 33 were cured (E); dead (D) - 2; left for additional treatment (R) - 5 people.

4. Archival documents of "druzhinen vrach" of "Eskizagarska Battalion No 5" of the Eastern Rumelian Militias. Titular Dr. G. Hakanov. Medical statistics

4.1 Set of documents - "ten-day report" of "druzhinen vrach" - Dr. G. Hakanov to "senior vrach" of the Eastern Rumelian Militias for the period May 1 - May 11, 1879. Outgoing No ?? from May 1879;

4.2 Set of documents - "ten-day report" of "druzhinen vrach" - Dr. G. Hakanov to "senior vrach" of the Eastern Rumelian Militias for the period May 11 - May 21, 1879. Outgoing No 166 of May 21, 1879;

4.3 Set of documents - "ten-day report" of "druzhinen vrach" - Dr. G. Hakanov to "senior vrach" of the Eastern Rumelian Militias for the period June 11 - June 21, 1879. Outgoing No 82 of June 1879;

4.4 Set of documents - "ten-day report" of the "druzhinen vrach" - Dr. Stojanovic to a "senior vrach" of the Eastern Rumelian Militias for the period June 21 - July 1, 1879. Outgoing No 84 of July 2, 1879;

4.5 Set of documents - "ten-day report" of the "druzhinen vrach" - Dr. Stojanovic to a "senior vrach" of the Eastern Rumelian Militias for the period July 1 - July 11, 1879. Outgoing No 89 of July 1879.

Some notes. From the applied archive units we learn that the main diseases in the studied period May - July, 1879 are:

- "illness pishtev. organov";
- "respiratory disorders";
- "inflammation of the cervical vertebrae";
- "cold illness sochl. bones";
- "peremikayushtayasya lohoradka";
- "venereal diseases";
- "slabosilie";

”bryushnoy typhus”.

It has to be concluded that there is an increase in the number of people affected from the ”brushnoy typhoid”.

The report is very detailed - information from the doctor (in the period June, 21 - July 1, 1879 and for the whole month of June) for the patients in the Lazarettos, using ”serno-kisloy hinnoy” purchased from the Kazanluk city pharmacy.

The average amount used for every patient (19 grana); diseases that impose use it - ”Feb. intenith., Thiphoidea, Bronchitis and Pneumonia”.

At least, June 11 (we have information about this band until July 11, 1879) Dr. T. Stojanovic fulfills the position of ”acting druzhinen vrach” to ”Eskazagarska Battalion No 5” (titular - Dr. G. Hakanov).

The statistics we illustrate below are for a longer time May 1 to July 11, 1879.

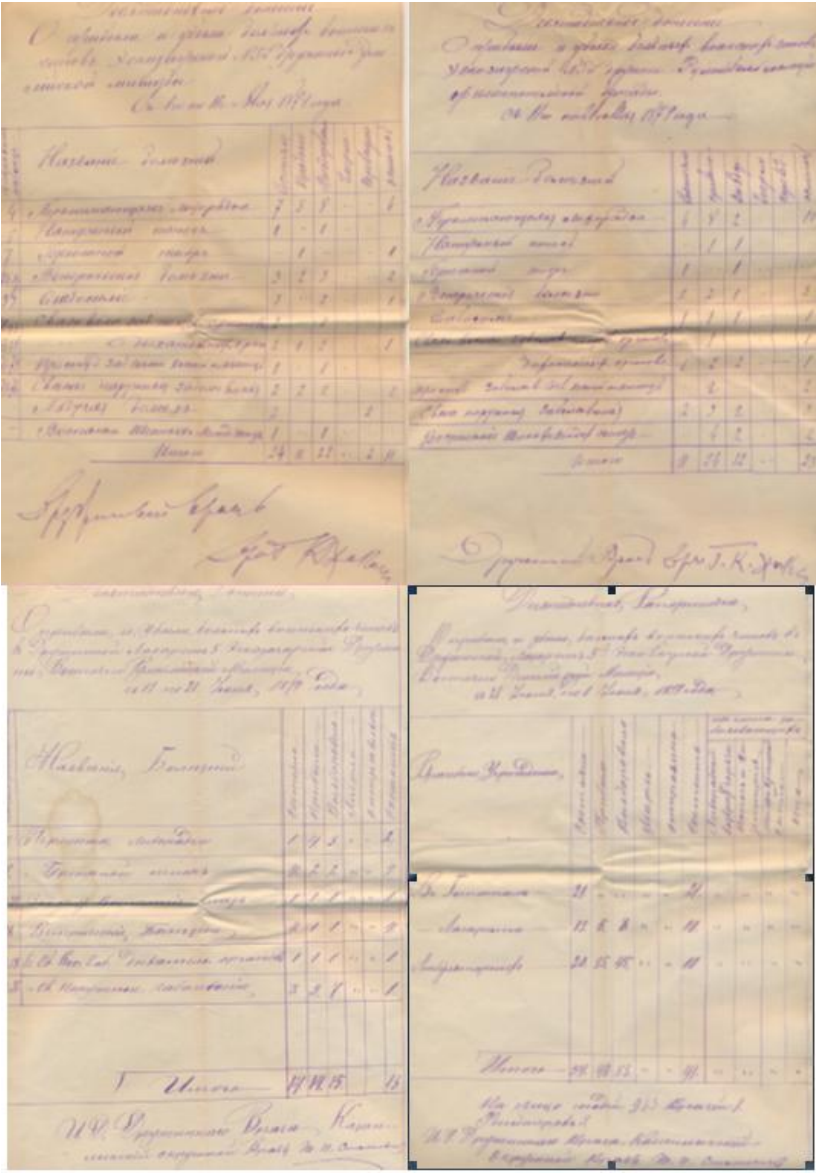
Comment on some data in the annual report: In the hospital structures of ”Eskazagarska Battalion No 5” between May 1 and July 30, 1879, 166 patients were admitted to treatment (AD). Of these, 140 were cured (E); dead (D) - 0; left for additional treatment (R) - 26 people.

5. Archival documents of ”druzhinen vrach” of ”Eskizagarska Battalion No 6” of the Eastern Rumelian Militias. Titular Dr. G. Hakanov. Medical statistics

5.1 Set of documents - ”ten-day report” of ”druzhinen vrach” - Dr. G. Hakanov to ”senior vrach” of the Eastern Rumelian Militias for the period June 1 to June 11, 1879. Outgoing No 172 of June 12, 1879;

5.2 Set of documents - ”ten-day report” of ”druzhinen vrach” - Dr. G. Hakanov to ”senior vrach” of the Eastern Rumelian Militias for the period June 11 - June 21, 1879. Outgoing No 174 of June 23, 1879;

5.3 Set of documents - a ”ten-day report” of ”druzhinen vrach” - Dr. G. Hakanov to ”senior vrach” of the Eastern Rumelian Militias



References for May (1 - 11; 11 -21) and 21 June - 1 July, 1879

Figure 7:

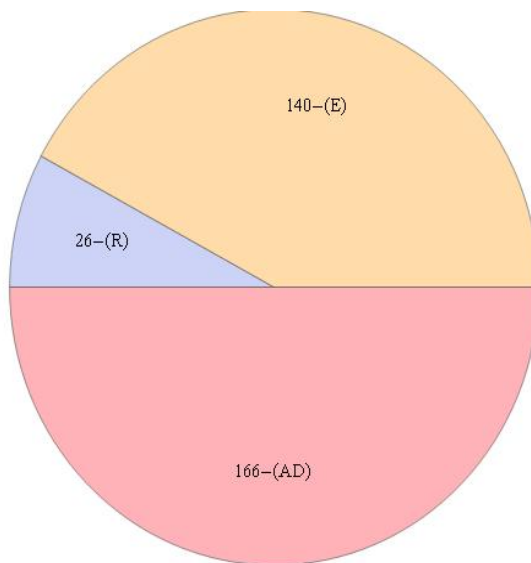


Figure 8: Relative part of healed-signed out from a hospital; Died and left for additional treatment to the total number of those treated

for the period June 21 - July 1, 1879. Outgoing No 177 of July 3, 1879.

Some notes. From the applied archive units we learn that the main diseases in the studied period June 1 - July 1, 1879 are:

"respiratory disorders"; "peremikayushtayasya lohoradka"; "bryushnoi typhus"; "zab. pishtev. organov"; "cold illness sochl. bones"; "inflammation of the cervical vertebrae"; "venereal diseases"; "slo-bosilie".

Problems with obtaining and using the deficit "serno kisloy hinnoy" are similar to those already we described.

Archival documents kept in medical battalion part are in perfect condition.

Comment on some data in the annual report: In the hospital structures of "Eskizagarska Battalion No 6" between May 1 and July 30, 1879, 115 patients were admitted to treatment (AD). Of these, 84 were cured (E); dead (D) - 1; left for additional treatment (R) - 30 people.

6. Archival documents of "druzhinen vrach" of "Haskovo Battalion No 10" on the Eastern Rumelian Militias. Titular Dr. P. Mashaykov. Medical statistics

6.1 Set of documents - the "ten-day report" of "druzhinen vrach" - Dr. P. Mashaykov to "senior vrach" of Eastern Rumelian Militias for the period June 21 - July 1, 1879. Outgoing No 92 of July 1879;

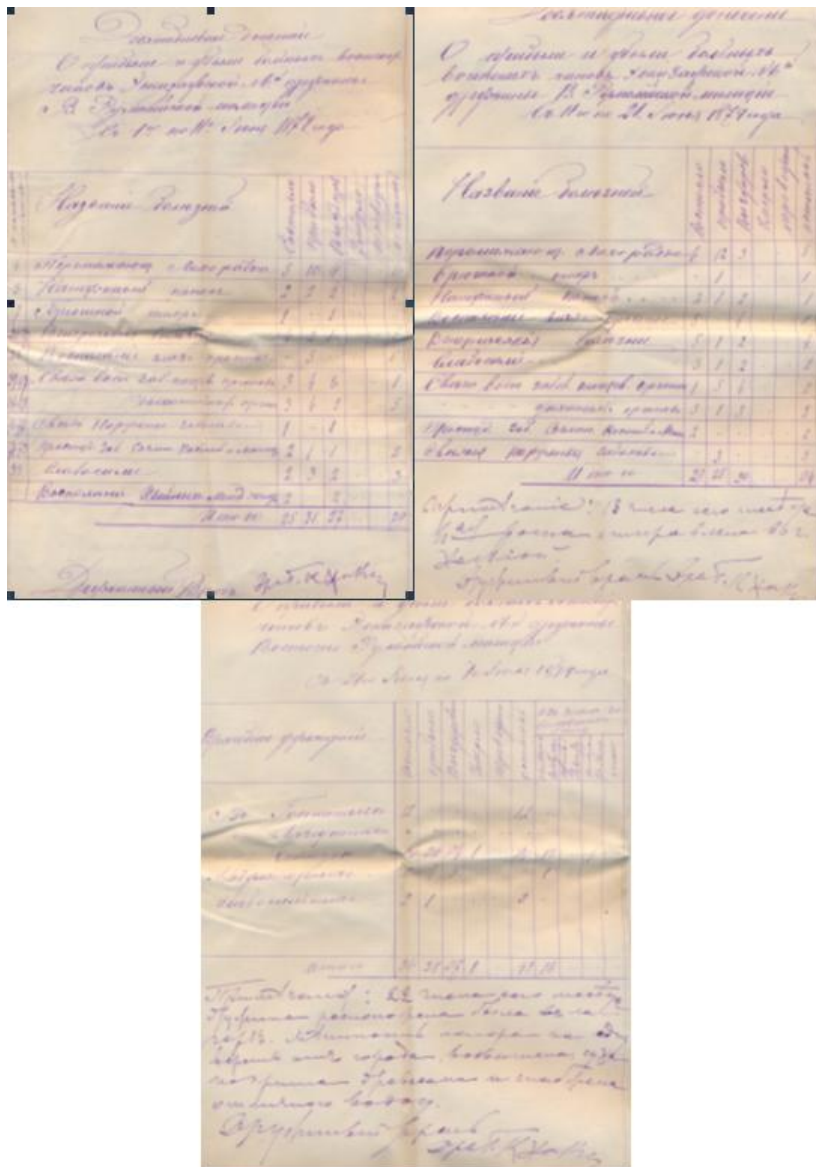
6.2 Set of documents - a "monthly report" of a "druzhinen vrach" - Dr. P. Mashaykov to the "senior vrach" of the Eastern Rumelian Militias for June, 1879. Outgoing No 96 from June 14, 1879;

6.3 Set of documents - "ten-day report" of "druzhinen vrach" - Dr. P. Mashaykov to "senior vrach" of Eastern Rumelian Militias for the period July 1 - July 11, 1879. Outgoing No 97 of July 15, 1879.

Some notes.

1. Interesting is the report of the used quinine:

"to June 1 - 5 ounce 2 dr. 10 g.";



References for the period June 1 – July 1, 1879

Figure 9:

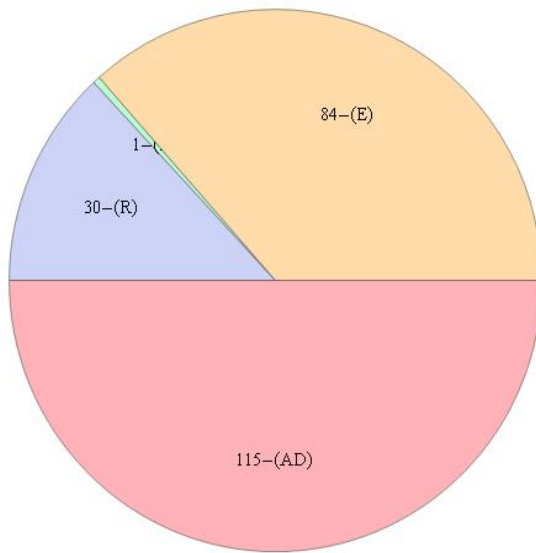


Figure 10: Relative part of healed-signed out from a hospital; Died and left for additional treatment to the total number of those treated

”spent - 4 ounce 2 dr. 10 g.;

available - 1 ounce.

2. Compared with the other Eastern Rumelian Militias, here appears ”mumps”, growing up the number of patients with diagnosis ”cataract” - 6 people.

Comment on some data in the annual report:

In the hospital structures of ”Haskovo Battalion No 10” between May 1 and July 30, 1879, 241 patients were admitted to Treatment (AD). Of these, 160 were cured (E); dead (D) - 0; left for additional treatment (R) - 81 people.

General remarks. Medical statistics

Summarizing diagnosed by doctors of service divisions of Eastern Rumelian Militias we can offer the following conditional disease classifier: LEGEND:

I. Traumas; II. Venereal diseases; III. Eye inflammation; IV. Weakness (from ” hard work ”); V. Inflammation of the respiratory organs; VI. Pulmonary diseases; VII. Colds; VIII. Rapid death (heat stroke); IX. Other diseases; X. Gastrointestinal diseases; XI. Toothache; XII. ”Vozvratnoy” typhoid; XIII. Dysentery; XIV. Mumps.

Using the previously existing Eastern Rumelian Militias Information - 7500 soldiers (updated in [4] to approximately 8000 soldiers, we can estimate the mortality rate as the quotient

5 (dead): 8000 (number) = 0.625 promille per thousand Militia soldiers.

Apparently, the hospital lethality for each hospital in the respective militia is relatively low. This low growth, in all likelihood (without claiming authenticity), is due to the relatively good medical equipment from Military field hospitals and medicaments provided to Bulgaria by the Russian Medical Service after its withdrawal in 1878. From the archival documents that we analyzed, we find that the information reflected by battalion doctors of the Eastern Rumelian Militias is

Deventer, 21 Junij 1879

Oranien Lusthuis te Bunnik, 21 Junij 1879

Deventer, 21 Junij 1879

Deventer, 21 Junij 1879

| Bijzonderheden | 1879 | | | | Totaal 1879 | Totaal 1878 | Totaal 1877 | Totaal 1876 | Totaal 1875 |
|----------------|------|-----|------|-------|-------------|-------------|-------------|-------------|-------------|
| | Jan | Feb | März | April | | | | | |
| 35 Bijzondere | | | | | | | | | |
| De Looze | 3 | 11 | 15 | | 3 | | | | |
| De Looze | 3 | 11 | 15 | | 3 | | | | |
| Aankomst | 1 | 5 | 4 | | 2 | | | | |
| Verloren | | | | | | | | | |
| Totaal | 11 | 27 | 34 | | 8 | | | | |

N. 91
De Looze
De Looze

Deventer, 21 Junij 1879

Deventer, 21 Junij 1879

Oranien Lusthuis te Bunnik, 21 Junij 1879

Deventer, 21 Junij 1879

Deventer, 21 Junij 1879

| Bijzonderheden | 1879 | | | | Totaal 1879 | Totaal 1878 | Totaal 1877 | Totaal 1876 | Totaal 1875 |
|----------------|------|-----|------|-------|-------------|-------------|-------------|-------------|-------------|
| | Jan | Feb | März | April | | | | | |
| De Looze | | | | | | | | | |
| De Looze | 1 | 12 | 18 | | 31 | | | | |
| Aankomst | 2 | 3 | 4 | | 9 | | | | |
| Verloren | | | | | | | | | |
| Totaal | 3 | 15 | 22 | | 40 | | | | |

N. 91
De Looze
De Looze

Deventer, 21 Junij 1879

References for the period June 21 - July 1, 1879

Figure 11:

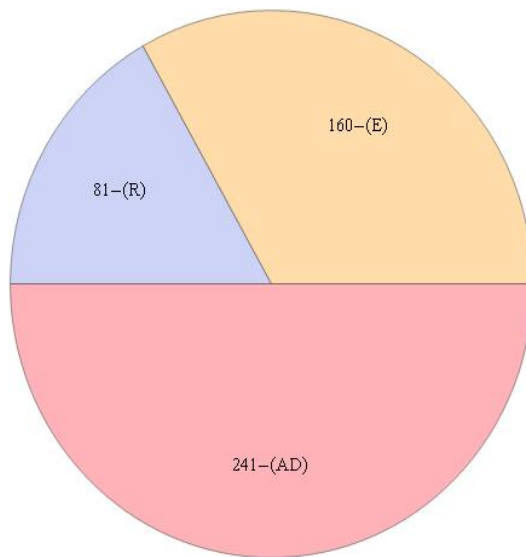


Figure 12: Relative part of healed-signed out from a hospital; Died and left for additional treatment to the total number of those treated

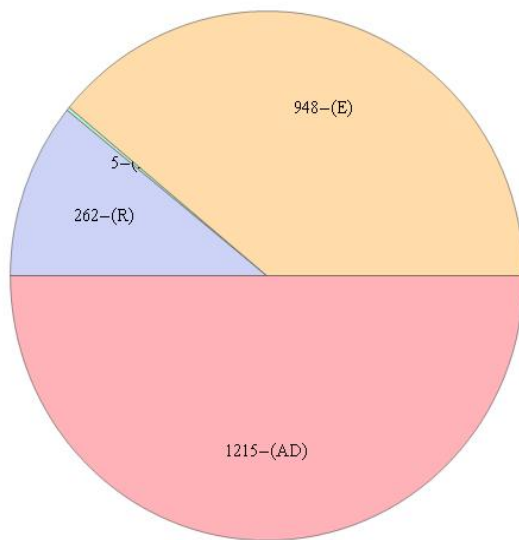


Figure 13: Relative part of healed-signed out from a hospitals of the Eastern Rumelian Militias, 1879; Died and left for additional treatment to the total number of those treated

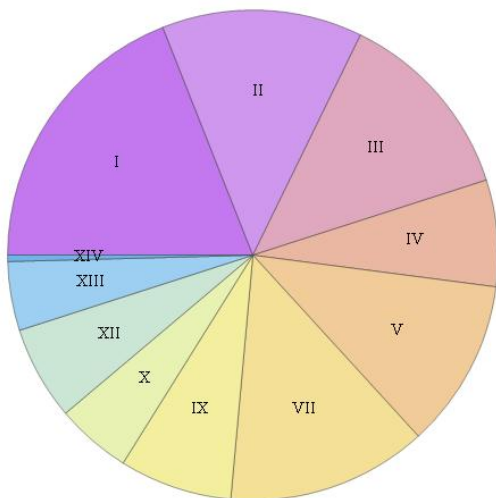


Figure 14: Disease ratio according to the "Legend - Classifier" I - XIV in the 1879

somewhat incomplete with regard to fever (including malaria). The problem is that in the health bulletins the doctors reflect and have been diagnosed with the diagnosis already admitted for treatment from a previous month. For this reason, we did not include this data in the total disease statistics for research from May to July 1879. Now, we provide the reader with this important statistic. On the graph below, we used the following conditional indications (along the Ox axis): 1 - Philippopolis Battalion No 2; 2 - Haskovo Battalion No 10; 3 - Philippopolis Battalion No 1; 4 - Eskizagarska Battalion No 5; 5 - Eskizagarska Battalion No 6; 6 - Kazanluk Battalion No 4.

The graph shows that the highest incidence rate of the disease was observed for "Philippopolis Battalion No 2" and the lowest for "Kazanluk Battalion No 4". Now it is clear why the battalion doctors so strictly describe the amount of quinine used and immediately write reports to a senior doctor of the Eastern Rumelian Militias when the drug is at finishing... For the period May-July 1879, patients with a diagnosis of "Venereal diseases" are 41. This number does not dif-

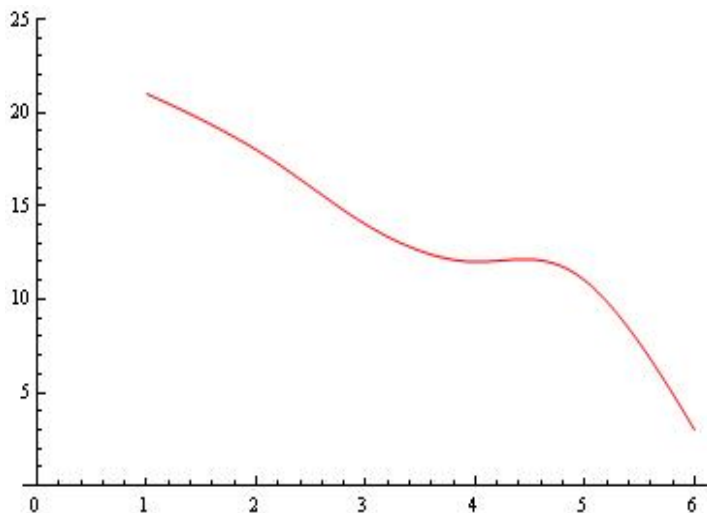


Figure 15: Statistics of patients with fever (including malaria) treated in hospitals included in the Eastern Rumelian Militias

fer significantly from the existing Eastern Rumelia statistics for later period of time. Patients with a diagnosis of typhus for the indicated period are only 14. Nonetheless, battalion doctors are very worried, and immediately notify Sanitary Management of Eastern Rumelia to take preventive arrangements for the civilian population in the district. Specifically, we note that the first official census in Eastern Rumelia, dates from 1884 and official statistics (including medical statistics) was born much later.

In this sense, we hope that our research may be useful for researchers working on these still not sufficiently researched topics

”Health in Eastern Rumelia. Medical statistics”.

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