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INFECTIOUS DISEASE
IN SERBIA 4.

BY

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Late Royal Army Medical Corps



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INFECTIOUS DISEASE IN SERBIA

By JOHN FURZE McMILLAN, L.R.C.P. Lond., M.R.C.S. Eng.,
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late Directeur de l'Hôpital à Rashka, et Docteur de
l'Arrondissement de Studenitza, Serbie.

*(Amplified from communications sent to the medical
journals from Serbia.)*

INVALIDED from H.M. Army in 1903 through malaria, on the 24th August, 1914, after the opening of hostilities, I was fifty-five years of age, and therefore too old for what is known as the executive branch of H.M. Medical Services. My attention, however, was directed to an advertisement issuing from the Serbian Legation, calling for volunteers to work in the infected districts—that is to say, to perform the work of Serbian doctors who were with the army. My services accepted and agreement signed, I soon found myself, with such kit as I could hurriedly gather together at Marseilles, aboard the Messagerie Maritime s.s. *Massoul*, which, after touching at Malta, Athens, and Dedeogatch, arrived at Salonica, where the great difference between Western and Eastern ways first came to my notice; for the Serbian Consul insisted that I should have brought my qualifications with me. But, insomuch as they rest in their usual tin cases, for which we paid 2s. 6d. to the porter at certain Colleges and a Hall, it seemed incongruous to suppose that one could whisk them from one's pocket! And so again at Nish, where I was compelled to wait for ten days pending the arrival of letters from the Legation. However, at length I was informed by the courteous Dr. Yefremovich, of the Serbian Sanitary Service, that the Minister of the Interior had decided to send me to Rashka, for the purpose of disinfecting the hospital, administering serum for *le diphtérie*, and to treat the civilian population of the arrondissement as well as soldiers returned from the front. But

whereas, through the courtesy of M. Geraitch, Directeur of No. 2 Military Hospital at Nish, I was enabled to study its workings, I will pause to give some account of the same, to which an interest is added by the trend of current events.

A BASE HOSPITAL IN SERBIA—HOSPITAL GANGRENE.

The building was originally a barrack for sappers, larger than the average English—*i.e.*, as regards the length of its corridors; the rooms now converted into wards are both large, spacious, and clean, the double windows, when open, allowing of both an ample and sufficient influx of air. The walls are newly white-washed, whilst the flooring, regular and level, readily permits of the frequent use of the Oriental brush, the tiled corridors also being peculiarly adapted to the periodic swabbing to which they are submitted.

The medical staff, consisting of both male and female officers, some Russian, some Serbian, others Greek, with Austrian prisoner M.O.'s, are all under the control of M. le Directeur. The ordinary hospital ward routine is much the same as in a British hospital—that is to say, to each officer is allotted a certain number of wards, for the efficient working of which he is responsible to M. le Directeur, whilst there is an emergency officer constantly on duty, whose business it is to meet any eventuality after the evening visit has been paid.

But the one and salient difference between a Serbian and English hospital is the mode of performing the dressing of the cases. It should be mentioned that under stress, as happened only recently, including the corridors, 1,500 cases can be accommodated, all surgical.

At 8.30 a.m. the patients from a certain number of wards are removed in canvas stretchers by a couple of Austrian prisoners to a room on the ground-floor, some 40 feet long and 18 feet broad, where there are ten beds placed at intervals down the centre. Around are forms. At the order the beds

are quickly filled with patients requiring dressing, the latter hopping or, rather, transferring themselves nimbly to the bed, for it should be stated that the most of the cases comprise leg injuries. Then, Serbian or Austrian orderlies having removed the dressings, an examination is made by the surgeon in charge. And although the writer has seen natives in India display fortitude, he has never seen anything to equal the bravery of the Serb whilst from a gaping, yawning wound, caused originally, perhaps, by shrapnel, and the sinus or sinuses opened up by incision, pus is removed by the pressure of the finger. The removal of the light gauze with which sinuses are plugged would in itself appear to be a sufficiently painful operation, but with ten patients on the beds at one and the same time one hardly hears a sound, the only exception being the case of a very young lad who has been injured in the railway repairing works.

A director is used for pressing the moist boracic lint home, whilst iodine is freely applied to the skin, and granulations are treated by a mixture of nitrate of silver and friar's balsam.

The antero-posterior flap method would appear to be effected above the knee with excellent results; whilst Teale's amputation about the leg does not seem to be employed, the latter undoubtedly, from the vascularity of the anterior flap, lessening the chance of contraction of skin and excessive granulations. The minor cases at the same time are treated on the forms.

This morning M. le Directeur, the patient smiling for the most part of the operation, removed from the outer middle right thigh of a Serb a shrapnel bullet embedded some 2 inches deep, which the patient received with apparent glee.

Can it be that the absence of hospital gangrene and tetanus is due in the main to the fact that in case of real urgency, thanks to the stoicism of the Serb, a primary dressing is freely applied without the administration of an anæsthetic?

RASHKA AND THE BOLNITZA.

Before I left England the dearth of medical aid, both as regards personnel and equipment, was brought prominently before the British public, so that an account of what has actually occurred under my notice should be of interest.

Rashka—a town of some 2,000 inhabitants, on the River Ibur, nestling amongst the hills, with the usual severe-typed Greek church in a prominent position at the foot of a mountainous spur, behind which lies the square—forms the apex of a triangle with Kralevo and Mitrovitza for the points of the base. From the former place the old frontier town (before the Balkan War, when a portion of Bosnia was ceded to Serbia) is distant 79 kilometres, and from the latter 60—a motor-car working at times, when it has not fallen into a ditch, but the usual mode of transit being by two-pony waggon; so that in a measure Rashka may be considered isolated. Mitrovitza, however, is readily in communication with Uskub (Scoplia), the old capital of Serbia, by railway, whilst the old Turkish town of Novi Buzzar connects Rashka with Serajevo, some 150 kilometres to the north-west.

After a soaking journey through mountain passes, I, with my interpreter,¹ arrived here, and proceeded to place the local Bolnitza (Hospital) in working order and to visit the adjacent villages.

The Bolnitza, lies some 2 kilometres—a little over a mile—from Rashka. Constructed on the German (Bavarian) model, it consists of a building divided into two wards of ten beds each; a large central hall with two excellent bathrooms annexed; a large office and dispensary, with surgery containing a convenient flap-elevating operating-table; a detention and women's ward—the whole accommodating

¹ M. Charles Kunover, an interned Austrian, a Slavene from Laibach, who escaped across the Danube, and then became naturalized with a view to continuing his studies as a civil engineer student, commenced at Vienna.

some thirty patients; whilst detached are officers' quarters, cook-house, stable, and mortuary. This, however, is the rosy side, and the seamy is embossed by the latrines and water-supply.

The latrines, or nuzneeks, however, possess a distinct advantage over those of Rashka and the villages around; for, as opposed to the nuzneek, comprising a hole in the flooring of an outhouse, with the ground or a running stream below, in the hospital there are w.c.'s, whose weak point, however, is that they open into cesspools with stout wooden covers, almost in a measure hermetically sealed. These are emptied by a Turc into a cart, and deposited in a meadow adjoining the River Ibur. There is an old adage to the effect that Rome was not built in a day, nor, I venture to say, in twenty days will our Western ideas of sanitation be instilled into the Serb, whose sole idea is that which pertains to the pomps and vanities of war; by which I mean that there is seldom spare cash for aught else.

So, with the water-supply (obtained from a well within the hospital enclosure) out of order, a man is summoned from Novi Buzzar to place the pump in order. This he does. The pump works well for three days, when again there appears a defect. And as about this time a hospital pony and voiture appear on the scene, whilst between the Bolnitza and Rashka there lies an excellent well for drinking purposes, and the diversion of a stream from without the hospital wall gives water for washing, the blacksmith cannot understand why I should refuse to pay him (from my pocket) for placing a pump in order that will not work. Such is the Balkan air.

I would mention that, although the leathery skimmed-milk cheese was not to my taste, I do not think that it disagreed with the Serbians; nor the sour kimak prepared from the cream skimmed after boiling the milk. Again, garlic and peprika (pepper) are distasteful to Westerns. Rakia, however, prepared from plums, a kind of peat whisky, is quite tasteful; whilst the backbone of the Serb diet,

maize, of which I have partaken on and off for several months, is both agreeable to the palate and, from the high percentage of its nitrogenous constituents, highly sustaining; and I do not associate this cereal with any disease, either due to a mal-affectation of the grain or its action on the alimentary tract.

In making a preliminary inspection of the buildings, we found in a room the belongings of my predecessor, Dr. Lazervich, who had died of what is here called *le typhé*, whilst investigation showed that the Serbian doctor's predecessor had been sniped in the hills and *blessé*, so perforce was compelled to retire. Luckily, in what the interpreter calls the "cave" (a cellar) was found a formol apparatus (made in Germany), with a fair supply of the disinfectant, and also abundance of alcohol. With the aid of a pin the much-needed sanitary measures were commenced. A small supply of flowers of sulphur was also found, whilst the discovery of two large jars of crude carbolic acid soon evinced the fact that the placing of this powerful disinfectant in open vessels about the hospital had not been hit upon. The dispensary, to which the writer has since added a few small bottles, such as tabloid cascara sagrada, may be considered international, for there are the ampoules of France in abundance; whilst Germany is to be noted for many preparations in powder form, variations of such drugs as antipyrin and phenacetin. Switzerland evidently lays much stress on variety and change in the way of digestive tablets; whilst Austrian drugs would appear to be for the most part patent.

The wide diversity in the range of the nationality of the medicines in the dispensary was at first a source of great trouble, inasmuch as the vicissitudes of war made it very speculative as to whether drugs indented for would be supplied or others substituted. So that one was perforce obliged to manufacture Gregory's and Dover's powder, infusions of senna, senega, etc., from the crude material; and here I

fancy that an apprenticeship I served with the late Edwin Furse, J.P., of South Molton, Devon, stood me in good stead. Luckily, I had taken with me a minim measure that was quite equal to the Austrian and Bavarian drugs, for I found that tinctures such as that of opium, and extracts such as that of ergot, were of B.P. strength; only occasionally would one be confronted with a seemingly unsolvable problem, such as how to dispense an oil of hyoscyamus without mucilage.

A minor worry that one was confronted with was that the chemist or pharmacien of Rashka had gone to the war, leaving behind him his wife, who could speak no French, and understood little more about drugs than was sufficient for the making of a hair-wash. Nevertheless, she was a genial little body, and did her best until at last—well, my interpreter suggested that she had better be allowed a rest.

The hospital, after it had been disinfected, was declared by me to be ready for the admission of patients; but, inasmuch as there was neither an economer¹ nor a caissier² forthcoming, this was impossible, so that I was compelled to admit, or rather detain, such cases as I thought imperative.

THE INFECTIOUS DISEASES—LA GRIPPE.

On my advent I was warned that my predecessor, Dr. Lazervich, who had died, had found much use for antidiphtheritic serum, which of course tells its own tale. It should be mentioned that the houses are modelled after the Russian type—that is to say, the better-class ones with double windows and a stove in the rooms, or, failing that commodity, an open wood fire in the centre of the room emitting pungent smoke, drifting hither and thither; whilst others in the villages in the hills, but for the most part isolated ones in inaccessible places, are built of wood, with two small port-holes and no gaps between the eaves and the wall, whilst the roof is of thatch—much re-

¹ Steward.

² Cashier.

sembling, as they lie perched on the hills, beehives. Such a dwelling in the winter one can well fancy to form a hotbed for typhus, or, as it is called here, *le typhé*, there being but a vain discrimination between this disease and enteric fever, although the latter is sometimes styled *typhé abdominalis*; so that, this being the case, one naturally expected to find the tail-end of an epidemic of typhus fever, as so much had been both talked and written on the matter.

Now, strange as it may seem, the first two cases to which I was called were those of asphyxia, and were resuscitated by the ordinary means, the cause being the shutting of the windows. One case, that of a boy, was diagnosed as tuberculosis, and subsequently died; whilst the second was one of diphtheritic sore throat, and made a recovery after an inoculation of 1,000 c.c. of antidiphtheritic serum. It may be remarked how difficult it is to examine the throat of a child under two years in practice, so that in most cases the evidence of the mother is the confirmatory diagnosis. In the space of three weeks I must have inoculated some hundred odd cases, including adults, children, and infants; and only in a few instances was fever present, when, of course, the diagnosis is that of diphtheria. I here speak as one who has studied the question of bacteriology, but has not the means at hand to examine or cultivate the exuda—that is to say, as a pathologist and clinician rather than a bacteriologist, who of course needs as much special study in the laboratory as does a chemist to make him authoritative. Furthermore, it is essential and imperative that both the clinician and bacteriologist should synchronize—a point upon which Dr. Savvas, my relief at Rashka, and I were fully agreed. The latter was a professional bacteriologist, and I left him conducting the examination of a dog that had been interned for several days, had bitten several people, and was thought to be mad. Now, diphtheritic sore throat may or may not be an antiquated expression, but when one

remembers that follicular laryngitis, with its strawberry aspect, can be both easily and readily differentiated from the more serious disease, it would not altogether appear to be out of date. So much for throat trouble.¹

And now comes the question of typhus and enteric. Neither in Rashka nor in the villages of Rudna, Jacobo, or Studenitza, have I encountered any cases. Certainly there was a case at Rudna of a farmer who had suffered from some severe form of sickness at Christmas-time, whilst there appeared on his body what might be the remains of petechiæ—faint brown spots not unlike those of secondary syphilis, when the patient is yielding to treatment. Whilst another case was also interesting from the fact that the man was suffering from gangrene of the toes. Here, however, my interpreter found that the soldier had lost his toes in the trenches before Belgrade in the winter. He, however, was convalescent from pleuro-pneumonia, as evidenced by râles and rhonchi; whilst his wife, who had been attacked at a subsequent date, showed all the signs: dulness, crepitation, râles, and rhonchi, without any great amount of the expectoration, either sanguineous or otherwise, that is so typical of pleuro-pneumonia, when it is allied either as a concomitant or a sequela to influenza. I must state, however, that later at Rudnitsa, whilst vaccinating, I was called to see a man who exhibited a coppery rash, similar to the case I have mentioned, but nevertheless with all the signs of pleuro-pneumonia.

When serving in India in 1890-91, I was one of the first to encounter an epidemic of pleuro-pneumonia, as a concomitant of influenza, when antipyrin, phenacetin, and sulphonal—drugs then outside the Pharmacopœia, undergoing trial—were made experiment with, with marked success, so that a most

¹ At the time of writing this I myself suffered from sore throat, and, having no formalin at hand, cut up a cake of Clarke and Foster's cherry jelly, the pieces yielding an efficient lozenge.

favourable report was submitted as concerns them. This fact is mentioned here because it indicates the line of treatment.

From the above description it would appear that this south-west corner of Serbia, whatever may be or may have been the case in other arrondissements, has been stricken since the early spring with an epidemic of *la grippe*, whose home in the first place is said to have been Russia. Normally an insidious disease, it may be observed that, when the catarrhal symptoms are pronounced, complications such as pleuro-pneumonia—and shall we say, despite the bacteriologist, diphtheritic sore throats?—are less prevalent than when the catarrhal symptoms are either absent or in abeyance. Little appears to be known by the bacteriologist as regards the influenza bacillus beyond its form, the fact that it is mobile, and its apparent faculty of appearing suddenly in the blood and disappearing equally suddenly. But this naturally directs our attention to the nidus question, and one concludes that the influenza bacillus in evidence gives way, or paves the way for the presence of one of the pneumonia bacilli or a diphtheritic one; whilst, as regards the latter and the administration of serum, so effective has the inoculation been that only five deaths occurred, one a child, moribund at the time of inoculation.

As regards pleuro-pneumonia, careful auscultation has enabled me—I was one time house-physician at my hospital—to diagnose some fifteen cases in the villages, mostly at Rudna, a village in the hills, and for the most part enveloped in mist. As one would suspect, the diphtheritic complication of *la grippe* is mostly confined to women, children, and infants, who lead a more confined life indoors than the men; whilst the latter occasionally develop pleuro-pneumonia, which, however, does not pass over the woman—possibly due to hill-climbing, or from contracting a chill whilst suffering from an attack of influenza.

DIPHTHERIA.

Having expressed the opinion and done my best to prove that just as cholera is endemic to India, and under certain conditions recrudesces, so I maintain is influenza endemic in Serbia, and divided into cases coming under the headings of affections of the chest, throat, and abdomen. And now I will make some attempt to deal in detail with the epidemic of what is popularly known as *le diphthérie*, in the hope that such observations as I have already made may be of interest to the bacteriologist in settling the question of the alliance of the bacilli of influenza, typhus, and diphtheria, to the solution of which question I would urgently draw his attention.

Ranging in age from infants just free of the breast, since the spring there has been a constant flow of patients to the hospital—of throat cases; and as it is the intention here to deal rather with the treatment than to give a detailed account of the various forms of throat affections, perhaps the following tabulated summary will suffice:

- Follicular laryngitis (a nidus).
- Diphtheria, mostly occurring in children under five.
- Diphtheritic patches.
- Diphtheritic patches of mouth and gums.
- Tonsillitis.
- Parotiditis.
- Affection of lachrymal duct and conjunctivitis.
- Inflammation of submaxillary gland.
- Enlargement of chain of glands about sterno-mastoid muscle.
- Inflammation of ear-passages, mostly, however, occurring at a later date.

It may be reiterated that, unless the mother is an adept at manipulating the tongue, it is extremely difficult to obtain a view of the throat in children under ten years of age. Antidiphtheritic serum, either from the Pasteur Institute of Paris or from Geneva or Lausanne is issued to the various arrondissements by the Bacteriological Section of the Sanitary Service at Nish, whilst the instructions

on the paper surrounding the bottles notifies that, whereas definite proof has been arrived at that the serum is curative in the most pronounced cases of diphtheria, at the same time its use is advised as a prophylactic, and as such I, working single-handed, have used it. Only once did a woman refuse the administration of serum to her child, whilst only on two occasions was there any hesitation in its employment, and that was when two children, aged ten and twelve respectively, were dumped down on the office floor suffering from all the symptoms of diphtheria, but with pronounced mulberry petechiæ over the most of the body, and my interpreter, who had served for eight months in the Military Fever Hospital at Nish, and had seen much typhus, was of opinion that the disease was *le typhé*. In a word, the rash was that of typhus, but the symptoms those of diphtheria. To both was administered serum, whilst one recovered and the other died.

The syringe used was a "Record," made in Germany, with metal piston, until it gave out, when use was made of a French one, all glass excepting the needle.

The mode of injection is as follows: If a child, let it sit on the mother's lap, the latter occupying a chair placed in the middle of the room. Then, over the left shoulder, below the spine of the scapula, towards the middle line, let the operator, with the left forefinger and thumb, pinch up a portion of the skin, and then with the syringe held in the right hand, the index finger guiding the needle, let him inject by pressure, which latter may needs on occasion be considerable. The child's left arm must be secured by the mother, but no great force must be exercised upon it, otherwise it will not be easy to obtain a relaxation of the skin over the scapula. In the case of adults the operation is simpler. Over 300 cases have been treated by me without any untoward result of any kind. A steel needle is much to be preferred to an aluminium one, for mechanical reasons, especially when the subject is a restive child.

At twelve o'clock on the day following the injection of serum, quin. sulph. gr. 5 were given three times a day, the object in deferring its use being that it might not act as a germicide upon the serum bacilli. Tannic acid, as a gargle, was served out liberally to adults, whilst a warm compress applied to the throat afforded relief as concerns pain associated with the glands.

It may be mentioned that as regards adults it has been my practice to touch diphtheritic patches with a mixture of glycerine and liq. ferri perchloridi, equal parts; whilst for children, but only rarely, on account of fear of causing a fatal spasm of the glottis—for it must be remembered that the obstruction in children is a mechanical one, due to the relative smallness of the upper air-passages—glycerine with a smaller quantity of perchloride of iron. As concerns paralysis, with the restoration of the blood to the normal after the internal administration of iron the sequela readily yielded. I would mention, however, the case of a boy aged twelve, to whom 1,000 c.c. of serum was administered on two occasions, and who, although the pain had completely subsided, was affected with complete inability to swallow, from paralysis of the muscles concerned in deglutition, so that, in spite of nutrient enemata (hitherto unknown in Rashka) freely given, he died—after, as it were, in my opinion the diphtheritic bacilli had been completely vitiated by the serum.

SERUM.

I have thought it better to utilize such communications as were written in pencil, whilst one was actually *in medias res*, however crude they may appear, and sent to the medical journals, than to whittle them up, for under these conditions they assume the form of bedside notes.

On my way home it was my privilege in the dormitory at Nish to converse with Dr. Edmund C. Body, Practical Bacteriologist and Lecturer for the

State of New York, who I found had been working on similar lines to myself; but in his case, however, the sphere of action was more limited. He pronounced the diphtheritic serum to be both curative and prophylactic. But he had a grievance, and that was that the various forms of serum were sold in America as so much tea over the counter by firms over whom the laws of New York State held no control. And, curious to say, the result of this patent vending was not to lower the price of serum, but to raise it: for instance, he showed me ampoules of 5,000 c.c. that cost two and a half dollars, whereas the serum of the Pasteur Institute and Geneva is sold in centimes. Still—and Dr. Body showed me the serum—New York State produces its own, and it is this that he uses.

As regards the "keeping" of the serum, it may be emphasized that ampoules of 1,000 c.c. are preferable for work on a large scale to those of 2,000 c.c., as in the former case the ampoule is emptied and finished, whereas in the latter case, where there is difficulty in obtaining more, the half of the 2,000 c.c. must be hermetically sealed, as well as it is possible, and so retained for further use. The directions on the serum issued from the Pasteur Institute and Geneva state that a slight flocculence is in no way to be deprecated, and this I found to be correct; but should there be a precipitate, then must the ampoule be destroyed. After handling some 400 ampoules, only in one case did I find it necessary to condemn the serum; and then the neck of the bottle was cracked, the smell convincing one that the serum was unfit for use.

I trust I have made it clear, from my practice on such largely abnormal, sweeping, epidemic lines, that from the clinician's point of view anti-diphtheritic serum may be advantageously employed both as a curative and prophylactic. But here a question arises as to the advisability of using all the various serums advocated as prophylactic in the widest sense of that word; for served out, also, by

the Sanitary Service at Nish was anticholera serum.¹ Steps, however, were taken by myself in conjunction with the Sous-Prefect to prevent any crudescence of this disease within the arrondissement.² Here the question arose as to the prophylactic use of that serum. The label informed one that 500 c.c. were to be used; then, after an interval of a week, other 500 c.c.; and later again a final 500 c.c., to confer immunity. Now, this on its face would appear absurd as regards a large arrondissement, unless, of course—and I would urge this point—there should be premonitory diarrhoea.

So, then, let vaccination hold its pride of place as a prophylactic, diphtheritic serum continue its way both as a curative and prophylactic, and let the bacteriologist direct his attention rather to the attaining the end of a curative with the serum of typhoid and cholera. At any rate, such is my belief and opinion; for, as I told the postmaster at Rashka when his child fell sick, did he but trust in me, I would not make a w.c. either of him or his.³

SERBIAN MEDICAL TERMS.

I append certain medical terms actually employed by myself in the examination of a patient at the Bolnitza. This is by no means exhaustive, but, after a brief study of the grammar and the learning of the numerals, may be advantageously studied with the surgical expressions contained in "Easy Serbian" (Forbes and Keyworth):

<i>Ide, Napret</i>	.	.	.	Come in.
<i>Otvori vrata</i>	.	.	.	Open the door.
<i>Dobro jutro</i>	.	.	.	Good-morning.
<i>Zatvori vrata</i>	.	.	.	Shut the door.
<i>Sede stolitza</i>	.	.	.	Sit down on the chair.
<i>Sta eme?</i>	.	.	.	What is your name?
<i>Sta ema?</i>	.	.	.	What is the matter with you?

¹ "Asiatic Cholera" (Messrs. Bale, Sons and Danielsson), by the author.

² See *Medical Press and Circular*, September 1, 1915, p. 197.

³ One uses freer language when conversing with a semi-oriental. I meant to imply that we do not know the effect of the residua of one serum upon another.

<i>Koleko vreme bōlestan ?</i>	.	.	How long have you been sick ?
<i>Odano</i>	.	.	A long time.
<i>Tri dana</i>	.	.	Three days.
<i>Koleko godina emesh ?</i>	.	.	How old are you ?
<i>Dvadeset godina</i>	.	.	Twenty years old.
<i>Skene marama</i>	.	.	Remove the handkerchief from your head.
<i>Pokazite yezik</i>	.	.	Show me your tongue.
<i>Boli ema ?</i>	.	.	Is there any pain ?
<i>Rasumes ?</i>	.	.	Do you understand ?
<i>Rasuman</i>	.	.	I understand.
<i>Yesik inutro</i>	.	.	Put in your tongue.
<i>Otvori usta</i>	.	.	Open the mouth.
<i>Kaze " Ah !"</i>	.	.	Say " Ah !" (To expose back of throat.)
<i>Oosbryganea bude</i>	.	.	I will give an injection of serum (literally, " There shall be ").
<i>Chuti</i>	.	.	Keep silent.
<i>Cheki</i>	.	.	Wait.
<i>Svuche ce</i>	.	.	Take off your clothes.
<i>Obuche ce</i>	.	.	Put on your clothes.
<i>Na pluarti</i>	.	.	Do not spit.
<i>Edesh li napolye ?</i>	.	.	Are your bowels open ?
<i>Nuzneek ochisti</i>	.	.	Clean the latrine.
<i>Lek triputa svako dnevni pete</i>	.	.	Take the medicine three times a day.
<i>Sutra jutro</i>	.	.	To-morrow morning.
<i>Veche</i>	.	.	In the evening.
<i>Oblok toplo gurlu metnuti</i>	.	.	Put a cold compress on the throat.
<i>Meshi prashak pola litre voda</i>	.	.	Mix the powder with half a litre of water.
<i>Ye li yediti dobro ?</i>	.	.	Do you eat well ?
<i>Mlako, choba, yedi</i>	.	.	Eat milk and soup.
<i>Ye li kashlass ?</i>	.	.	Have you a cough ?
<i>Doboko dishi</i>	.	.	Take a deep breath.
<i>Na dishi</i>	.	.	Hold your breath.
<i>Ya li nishli drugo ?</i>	.	.	Is there nothing else ?
<i>Opet dochi za tri dana</i>	.	.	Come back in three days' time.
<i>Idete</i>	.	.	You may go.
<i>Drugi ide</i>	.	.	Let the next patient come in.



