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SOME OBSERVATIONS OF THE MEDICAL
DEPARTMENT IN THE
LAND WAR OF
1812.

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The war of 1812 is important in the political history of the United States as it definitely changed the loose confederation of the thirteen colonies into a united nation. The revolution brought freedom to the colonies the war of 1812 created a central government.

The military history of the war is disappointing. The chief cause of this was the organization of the army, which had been dictated by the policy that kept each state independent and jealous of its neighbor. Under a pacifist president, the regular army was being abolished, and reliance for defense was placed in a militia controlled by the state governments. This militia was officered by political favorites.

Consequently, with overwhelming numbers in our favor, we suffered a series of the most disgraceful defeats in our history. Instead of seizing Canada in a few months, as President Madison predicted, we were invaded and our capital was burnt. Only the victories of the naval forces saved the country from disintegration. During the war over half

a million militia were raised who, through mismanagement, failed to subdue the British forces of twenty five thousand.

As a result of these defeats both the army and the civil administration were criticized. So intense was the popular feeling that the veterans of this war had difficulty in securing pensions and were never treated with the respect shown to survivors of the Revolution.

Many of the commanders attempted to defend themselves by blaming others, especially the medical and supply services. In some of the New England states opposed to the war many falsities about the number of the sick were circulated to make the war unpopular.

Most of these criticisms were unjust. Individuals did their full duty. The fault was in the military policy of the government which resulted in the use of untrained troops, short enlistment periods, political generals and staff corps with responsibilities but without authority.

The medical department was inadequately organized to perform the functions demanded of it.

This can be seen by comparing it with the present organization, the results of a hundred years of experience since that war.

Our army has now seven medical officers with eighty trained enlisted assistants for each thousand men. Two out of these seven doctors are assigned to the combat troops to act as regimental surgeons. Five out of the seven are on duty with the various medical units of the army. The regimental surgeons give first aid in combat, while the remaining 70% of the medical officers on duty with the ~~xxxx~~ medical regiment, evacuation and general hospitals, hospital trains and medical supply depots and similar units, are engaged in the functions of evacuation, hospitalization and medical supply. The medical department having control of these activities is responsible for their successful operation.

In 1812 the main function of the medical department was considered to be the administration of first aid on the battlefield. While less than a third of the medical officers of the present day are assigned to this duty at that time

practically all of the doctors were assigned as regimental surgeons. This work being well organized was efficiently carried out.

No plans were made to care for the transportation of patients. Baron Larrey, a surgeon in Napoleons army had developed an ambulance system in 1790, which provided for evacuation, hospitalization and supply, but although the Americans were familiar with his medic-military writings, they did not appreciate the importance of his new system of organization. This deficiency in our medical service was not corrected until the Civil War.

Hospitals were a necessity. Owing to the prevalence of epidemic diseases in the hospitals of that day they were very unpopular, being called the graveyards of the army. No permanent medical units were formed to organize the hospitals but they were developed as needed, the personell being drawn from the regimental surgeons of the command. At the present time over one half of the medical officers of the army

are permanently assigned to hospital units.

Medical supply was considered a responsibility not of the medical department, but of the quartermaster corps and the army contractors. Contractors had much political influence, and their chief concern was making money. One of them, who had the supply of an army while it was in the United States, finding that he was losing money, had the army ordered to invade Canada over the protest of its commander. When the army left home territory his contract was completed and he hastened to make a new contract for the supply of in enemy territory under much more favorable terms. Such men had little interest in the supply of medical materiel, and although much was ordered little ever reached its destination.

When war was declared in 1812, the regular army numbered 6700 with 130 medical officers. During the war 480,000 militia were called, with 1429 medical officers. This made an average of three doctors to each thousand men. As some of these had to be assigned to hospitals it is probable that the actual number with the troops was about two to each thousand, the same ratio that exists at the present time.

Doctors in the army were commissioned and had the social status of officers. They did not have relative rank but were classed as surgeons and surgeons mates. There was a surgeon general with an assistant known as the apothecary general, while each army and regiment had a surgeon on the staff of the commander. Militia regiments chose their surgeons as they did their officers, by a popular vote. A staff surgeon received \$1500 a year, a regimental surgeon \$900 a year, a little less than the pay of a major. Surgeons mates on the staff were paid \$700, those with regiments \$600 annually, a little less than a captains pay.

Their duties were supposed to be the supervision of sanitation and the care of the sick and wounded. The performance of this mission was hampered not only by the faulty organization but also by the lack of clearly defined authority.

On sanitary questions many commanders considered any recommendations of the surgeon as an unwarranted assumption of authority.

Their attitude was that of General Wilkinson who said, "Damn the Hospital Department." (2 p 110 v III)

In the hospitals there was complaint that line officers would visit the wards in the absence of the surgeon and order whomever they pleased back to duty. This was contrary to regulations but illustrates the attitude of the average officer who considered the surgeon as a family doctor whose advice was to be followed or ignored as was seen fit.

Another difficulty was the question of enlisted assistants. At the present day the medical department has a large number of enlisted men who are permanently assigned to it, and who can be especially trained in their duties. In 1812 there was no enlisted section of the medical department, but as men were needed they were detailed from the combat troops. Officers always assigned to such duty men whom they did not want in their own organizations. Such soldiers were useless, and eventually had to be returned, their places being taken by convalescents who showed an aptitude for nursing.

The professional ability of the army surgeons was that of their comrades in civil life. Their were no great physicians in either group. The period of 1800-1820 was a time of quiescence in medical progress in this country.

War with great Britain was declared on June 18, 1812, but no operations could be undertaken until troops were raised and equipped. The general plan of campaign comprehended three invasions of Canada, from Detroit, Niagara and Lake Champlain. All were failures. At Detroit, general Hull attempted his advance without waiting to train his army, was forced back and in August surrendered 1800 men to 1400 British and Indians. By the time the other two armies had completed their training period, sickness was prevalent, and after a half hearted attempt, they withdrew to winter quarters.

The summer and fall of 1812 was marked by sudden transitions from hot and dry to wet and rainy periods. The volunteer army

was composed of "that description of men who were habitually indolent or could find no other employment". The majority were in poor physical condition. The bad discipline of the recruits and the lack of training of the officers made sanitation impossible, and one epidemic after another swept through the army.

In July August and September, dysentery, diarrhoeas and fevers were prevalent, while in October and November diarrhoeas, rheumatism and measles were the principle complaints. Broncho-pneumonias were common complications of the measles. In December 1812 and January and February of 1813, a severe, very fatal epidemic pneumonia appeared among both the army and the civil population.

A surgeon with the English army has given a good picture of the dysentery and its treatment at that time.

"About the beginning of January. . . . Bowel complaints which had previously appeared amongst. . . . the fatigue parties of the army, began to be very rife. They varied in degree of severity, from the milder symptoms of dysentery to its most aggravated forms. I may enumerate in a few words the symptoms of this disease. The patients, for the most part, complain of severe tormina, tenesmus, scanty bloody dejections, want of appetite and strength, pains all over them, and a disposition to vomit in taking either food or drink. The tongue was white or yellow; the eye languid; the pulse above 100, small, and easily compressed; the skin often dry; or covered with clammy sweat, but always considerably increased in temperature.

". . . . On the first appearance of dysentery, its treatment was commenced by a flannel roller bound tight around the abdomen; and ordering flannel clothing next the skin. . . . Saline cathartics, or oleum ricini, with a few grains of calomel, were repeatedly given, until the stools were increased in quantity, and more freely rendered. At the same time, plentiful dilution, with tepid gruel, warm tea, rice-water (seasoned with sugar and a little wine), decoctions of linseed or of gum-arabic, I have always considered of primary importance.

"When the primæ viæ had been fully evacuated, an attempt was made to restore the natural secretions, and open the pores of the skin. Antimonial powder with opium was employed for this purpose, but more generally the pulvis ipecachuanhæ compositus, which certainly seemed

"to succeed best.

"Whenever tormina and straining returned worse than ordinary, a cathartic was given in the morning, followed by a large dose of opium. . . .

"By these means, aided by perfect quietude, repose, and low diet, the pyrexia soon disappeared, and nothing remained but debility and irregularity of the bowels, which were to be removed by the Mistur. cret. c. opiâ, the Infus. quassiae excels., or the Mistur. cinchona, given thrice or four times a day. . . .

"In the malignant forms of the disease, I began by giving a strong saline" and bloodletting. This "preliminary step being taken, I immediately began the use of calomel, and pushed boldly on to salivation, from the belief, which seems to be well founded, of an occult connection betwixt dysentery and a morbid condition of the liver.

"The doses I gave were regulated by the constitution of the patients. . . . but one scruple night and morning was the most usual prescription, seldom less than ten grains thrice a-day. . . . I have in this way given 16, 18 or 20 scruples of calomel in the the course of half as many days before the mouth became affected. " When this happened the calomel was discontinued, a tonic was prescribed and "generally, as soon as the mouth was well the patients were fit for duty."

Enemata were not advised; both because of the straining they caused and the ~~disagreeable~~ "unpalatableness

of this species of remedy to the good old English habits of delicacy."

(3 p 129)

In 1813 the plan of campaign was the same as in 1812. Again three invasions of Canada were planned while operations were also begun against the Creek Indians in Florida. On the western front the British were ~~fixdly~~ finally defeated .

In these two campaigns at Detroit the Americans mobilized 50,000 militia to drive out the 800 British stationed there. (4 p 111). On the Niagara front affairs were undecisive, while at Champlain, Wilkinson's force of 13,000 was driven back by 2,000 British. (4 p 113)

The winter epidemic of pneumonia had left many convalescents and as soon as active ~~operations~~ operations were undertaken the number of sick increased rapidly. In August 1813, at Sacketts Harbor, the daily report showed 2572 sick out of 14,000, about one man in five. (2 app Vol III)

Much of the sickness was reported as typhus. At that time this term included, true typhus, relapsing fever and typhoid, indeed almost any fever with a typhoidal state and without localizing symptoms. The clinical description of these cases is that of typhoid fever.

Dr. Ross, the staff surgeon with Wilkinson's army had much trouble with his medical supplies. In preparation for the invasion of Canada, he packed his available materiel and requisitioned more. His requisition was ignored and the quartermaster took charge of the supplies he had. It was so badly cared for that on arriving in Canada most of this equipment had disappeared and very little of it was ever recovered.

In his report Dr Ross also stated that much sickness was caused by the bad flour furnished by the contractor. This flour was contaminated with ergot. The description of the

results is disappointingly brief. He says:

"Besides the ergoty bread, a tincture of ergot was taken in the form of whiskey. Our whiskey being distilled from grain containing the clavus secalinus or spurred rye formed this alcoholic tincture.

Hence both food and drink were productive of the dry mortification and other malignant symptoms of the disease which prevails in our army.

I have numerous facts and authorities in my possession as well as observations made by opening the bodies of several who were destroyed by the poisonous food." Unfortunately he gives no further details. (2 Vol III App IX)

A hint as to the prevalence of ergotism is given in the report of a small corps of this army at Franch Mills. 47% of the command were sick of whom 52% had dysentery, 24% pneumonia, 8% typhus and 16% "paralysis of all the extremities... .. attended with mortification of the toes and feet..... which frequently proved fatal." (1 p 119)

The mention of the tincture of ergot formed by the whiskey suggests that alcohol was freely used by the soldiers. Several surgeons comment on the large amount of whiskey consumed by the army reporting many deaths from acute alcoholic poisoning. Heavy drinking was common among all people at that time and the conclusion of one report suggests that medical men approved of the practice. The report states; "It may be esteemed medical heresy by some to declare it is my opinion that ardent spirits should not be used as a common beverage, diluted or not. Habits are unconquerably stubborn. Long established propensities will not yield to the voice of reason,..... the vice is a growing evil." (1.)

In the treatment of dysentery it will be remembered that large doses of mercury were the rule. Naturally cases of mild mercurial poisoning were common and in 1813, one physician reported five severe cases, four of them fatal. His description of the fifth case which recovered shows the severity of the symptoms and the treatment given.

"Thomas Broughton, of the 6th regiment of U.S. infantry, a spightly lad of about seventeen years of age, fell into my hands upon the Niagara frontier, (Lewistown hospital) in July last, with a disease at that time wholly mercurial. I could not with certainty or precision, ascertain the nature of the disease, which occasioned the exhibition of the mineral; but believe it was a febrile complaint.

"When he was first palced under my charge, he was extremely weak and emaciated, had a slight cough, attended with a profuse diarrhoea, cheerful, and in good spirits, feared nothing--which, by the by, is characteristic of most soldiery, but was remarkably the case in this instance. Mortification had taken place in the buccinator muscle of his right cheek, and under his jaw, and had been progressing several days. The hole in his cheek, occasioned by the sloughing, (when I first saw him) was about three quarters of an inch in diameter, perfectly round, and had the appearance of being cut out with a knife, or some sharp instrument. That under his jaw, about the size of a goose quill.

"I placed him under the charge of a faithful nurse, whose sole care was to attend to this one patient. I directed his mouth (which was very offensive) to be kept perfectly clean, by injecting into his mouth, and through each of these orifices, warm water, diluted brandy, &c. by means of a small syringe. I ordered at first gr. xxv, and afterwards gt. c.l. Fowl. min. solut. to be mixed with a little water, and his mouth syringed with it: I directed a ~~rapiditax~~

repetition of this quantity five or six times a day, taking care that it was not swallowed. . . .

"Bark (cinc. off,) and wine or brandy was given him internally, in large quantities:- the tinc. opii. was also administered largely, not only to check the diarrhoea, but as a general stimulant (upon the principles of Pott) to arrest the progress of the mortification. Under this treatment sphacelation continued to progress, until the orifice in this cheek had attained to about the size of half a crown, and that under his tongue to the size of half a pistarene.

"The progress of the mortification was arrested" but "the caries of the bone continued to progress slowly, the teeth were loose and as they became troublesome were taken out, one after the other, until all the the teeth upon the right side of the jaw were removed."

The right lower jaw was carious and could be moved about with forceps but could not be extracted this way as the mouth could only be opened half an inch. This sequestrum was then removed surgically through the cheek.

"The wound healed by the first intention through the principle part of its course. The fistulous openings both soon closed, and the patient gradually recovered without much disfiguration. The chasm has been filled up by ossific matter. . . . and it is probable that a new bone will eventually supply the place of the old one. . . .

"He now eats and converses very well, which before were performed with difficulty. His general health is good and the contour of his face is daily improving, so that there is a prospect of his yet becoming quite a handsome man".
(Whitridge quoted by Mann p 83)

In 1814 the Americans again endeavored to subdue Canada, a double advance being planned from Niagara and Plattsburg. In August the British took the offensive, raiding Washington from the sea with a force of 3500. The advance guard of 1500 met a force of American militia numbering 5400, who had been hastily mobilized to defend the capital. After firing one shot the militia fled losing but eight killed and eleven wounded. The British continued the march to Washington where they burned the capital and other public buildings. This battle of Bladensburg is the worst episode in our military history.

During the winter of 1813-1814 epidemic pneumonia was again a serious problem. For several years before the war the New England states had been suffering from a winter epidemic of "spotted fever" in which mental disturbances and meningitic irritation were early and constant symptoms. In the first winter of the war this usual winter epidemic was more severe and of a different type. It was then localized in the lungs and pleurae and was usually called "peripneumonia notha".

It is interesting to note that while many writers described this epidemic, no one gives any statistics to show the incidence or mortality of the disease. They content themselves by remarking that the epidemic was widespread, the morbidity great and the mortality high. They then speculate upon the probable cause of the disease, discussing climate, atmospheric states and constituents of the soil as the most probable factors. Their main interest is in the description of the cases and the question of treatment; whether bleeding or stimulation was the specific cure.

From their writings the attitude of the physicians of 1812 towards disease may be

reconstructed. They had no idea of the bacterial origin of disease, no interest in statistical studies, no knowledge of auscultation or percussion, no desire to measure the amount of fever except by rough estimation, only an elementary acquaintance with gross pathology and clinical pharmacology, and a background of superstition and magic which often effected their judgments. It is not surprising that they were most interested in clinical description and the question of proper treatment, things they felt to be of real utility contrasted with the casuistic philosophizing of the early nosologists.

The "spotted fever" which had been epidemic before the war was apparently cerebro-spinal-meningitis. The pneumonia was first seen in New England in the winter of 1812-1813, and reappeared each winter for four years, gradually spreading over the entire country. The second winter it appeared in Delaware while in the third winter it reached Georgia and Mississippi.

In a symposium on this disease conducted by the Medical Repository, fourteen clinicians from all sections of the country took part. All agreed that it was primarily a pneumonia, usually with pleurisy, frequently with serous

effusions in the chest or abdomen, that hemorrhagic complications were common and that dysentery often accompanied or followed it.

Males were most frequently attacked, Davis of Carolina stating that ten males suffered to one female. The very young were usually spared and the death rate among the aged was no higher than among the middle aged. The epidemic progressed through the country slowly, at about the rate of 300 to 400 miles a year. Since the war hindered civilian travel and military movements were in the opposite direction this rate of advance would be about that of a disease spread by contact.

Clinically there were two principal types the sthenic and the asthenic. Some observers added a third mixed form.

The sthenic form was the most common. "At the first onset of the disease there were strong rigors, with acute pain through the chest. The rigors were followed by much heat, strong pulse, cough, and no expectoration. The efforts of coughing always increased the pain in the breast. The above symptoms promptly demanded blood-letting from sixteen to thirty-two ounces. If any mitigation was procured by this operation, some expectoration of mucus streaked with blood followed. Evening exacerbations frequently required a repetition of the lancet. In a few instances, two quarts were drawn from the arm of the patient, in forty-eight hours, with the best effect—the removal of every alarming symptom.

"But when this most important remedy, bleeding, was omitted, the patient most generally died in the first stage of the disease, with an abscess within the lungs; or, if he survived the bursting of the abscess, life was protracted possible, some weeks; when he died with hectic emaciation."

(Mann p 25)

The following autopsy report of a case dying on the tenth day illustrates what was probably meant by the term "abscess" in the above description.

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CASE TENTH

"THOMAS FARRING, 11th regiment, was placed under my care the last of April, 1814. Upon examination, he was found labouring under a chronic complaint of the lungs, consequent to pneumonia. At this time his complaints were some pain in the left breast, hoarseness, troublesome cough, difficulty in breathing, little appetite. . . . He was bled moderately a blister was applied to the affected breast; a pill of one grain of submuriate of quicksilver, one grain of opium, and one fourth grain of tartrate of antimony was administered every night.....Profuse night sweats supervened, with loss of speech, delirium and anasarca swellings. He died ten days after I made my first prescription.

Dissection.

"May 6th. Upon opening the abdomen, it was found to contain about one and a half pint of water. The intestines were much thickened and corrugated, bearing strong marks of ~~inf~~ inflammation. The caput coli and ascending part of the colon appeared to be free from inflammation, but much distended with wind. The stomach and spleen appeared sound. The liver as in health and natural.....

"Upon raising the sternum the lungs were found exceeding large in either cavity. The right lobe had some slight adhesions on the back and upper part of the cavity of the thorax. A small portion of the lobe immediately under the clavicle, and near the spine, had lost its natural spongy texture, and resembled that of the liver.

"Upon cutting into this part a small quantity of pus was found in the cells. . The left lobe was very large and distinctly divided by a fissure running longitudinally dividing the front from the back part. . . . The front division . . . appeared healthy and natural, without any adhesions; the back portion. . . adhered to the pleura in every part. It exhibited strong marks of inflammation, being of a dark purple color and considerably hardened. Upon cutting into every portion, particularly the upper and back part, every cell discharged thick pus in abundance. Indeed, wherever an incision was made, the wound appeared like a mass of thick pus, connected only by the thin membranous texture of the lungs; not much dissimilar to a honeycomb if filled with thick pus."

(Surgeon March, quoted in Mann p 196)

The asthenic form of the disease was much more rare in the ⁺New England epidemic, but much more fatal. Bells description is classic.

"In the peripneumonia notha there is not merely an inflammation of the pleura, as the name expresses but of the lungs themselves; and it is not from inflammation, pain, fever, or acuted suffering that they die, but because the lungs are entirely crammed with blood; the heart can no longer move, they are not sensible of their dangerous state, but are suffocated in a moment and die without a groan. . . .

"The pulse is weak, the cough is slight; the difficulty of breathing is more anxious than painful, arising from inability to inhale the air; the face sunk in the features, and flushed or rather of a lurid colour, except when cadaverous, pale and sallow; the suffocation is sudden; the lungs have a liver-like solid consistence they have no longer the cellular appearance of lungs; for their bronchiae are crammed with blood; their common cellular structure is also full of exuded blood. . . . and they sink in water. The heart is so curbed in its action, that it gives but a small feeble trembling pulse; and even in a few days, the heart is wonderfully dilated and enlarged, and filled with fluid and grumous blood."

As to the relation of the epidemic pneumonia to other diseases there was a difference of opinion. Bascom of New York (5 p 15) considered it a form of "spotted fever" without petichiae or meningitic symptoms: Surgeon Mann of the army distinguished it from "spotted fever", influenza and true pneumonia, while Singleton of Virginia thought that it was the epidemic influenza. The preponderance of opinion considered it a separate disease, many even thought it to be an entirely new entity.

Singleton based his identification of the peripneumonia with influenza on the varied clinical character of the disease. He describes an intestinal form as common. He also stressed the periodicity of influenza pandemics giving their dates as 1733, 1775 and 1790, and suggested that the epidemic of 1812 was carried from Europe by the British soldiers.

From a review of the many cases published it seems reasonably certain that Singleton was right and this epidemic was influenza. Its great incidence, Hazeltine remarking that not a family in his district was spared (5 p 31)

its high mortality (5 p 31), its varied symptomatology and prolonged convalescence, its occurrence 22 years after the last pandemic, all resemble influenza more than any other disease.

In the medical history of the campaign of 1814 cases of epilepsy cured by silver nitrate internally are reported. (1 p129)

Fatal poisoning by lead and antimony followed the long continued use of lead acetate and antimonial tartrate in dysentery at times. (1 p 133 135)

The best treatment for rheumatism was to put the patient to washing clothes in the hospital laundry. The hot steam arising from the tubs relieved the pain and made the joints more supple. (1 p 140).

General hospitals were established during the war as they became necessary at different camps the principle ones being at Plattsburg, Burlington, Greenbush, Sacketts Harbour and French Mills.

Dr Tilton the surgeon general, an old veteran of the Revolution, had suggested that military hospitals would be best built of as rough log huts, with dirt floors, and an open fireplace in the center without a chimney the smoke escaping through a hole in the roof.

This method of heating and the loosely constructed walls would insure free ventilation while the earthen floors would "absorb or neutralize" the "infectious principles". (1 p 240)

On account of the expense of hauling the logs the Quartermaster General built such huts only at French Mills and Brownsville.

The other general hospitals were built of "framed timber" with wards about 20 by 24 feet, each of which housed twenty patients. The average hospital could accommodate 800 to 1200 patients. There were never enough hospital beds to care for more than a minority of the casualties and from one half to three fourths of the sick had to be treated in improvised regimental hospitals.

Several so called "flying hospitals" were organized for service with the invading armies, in which the patients were housed in tents, the bunks being made of canvas bed bottoms supported by stakes driven into the ground. They were not as mobile as their names would imply being seldom moved more than once during the campaign.

Their professional personnel being borrowed from the regimental surgeons, when active operations ~~resumed~~ forced the return of these medical officers to their own units, the hospitals were left without doctors.

At one time in 1813 there was just one surgeon to care for 730 patients in Lewiston Hospital (1 p 252) The sick rate of the army at that time was over 3600 per 1000 per annum.

The treaty of peace was signed at Ghent on the 24th of December, 1814. Before news of this had reached the states the most brilliant land battle of the war was fought at New Orleans, where on Jan 8th 1815, Jackson with less than 6000 men repulsed 14000 British veterans with a loss of 2000 killed and wounded.

Nearly all the difficulties of the medical department in this war can be traced to an inadequate conception of its mission. The one duty which was clearly recognized, the immediate care of the sick and wounded by the regimental surgeon, was well provided for, and there was only praise for the manner in which it was done. The importance of evacuation, hospitalization and supply ~~was~~ was not recognized and no system of organization existed to carry out these functions. Consequently they were badly performed.

But during the war the medical service proved its value and the War department became convinced of its utility.

In 1815 when Congress in reorganizing the army considered the elimination of the medical department it was the Secretary of War who demanded its retention, that it might, in future wars, preserve "from death and disease.....that most valuable and necessary class of citizens who are employed to protect the rights of the nation and support its independence". (1, p ix)

The End.

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six

Note. Only the first six items contain important information concerning the activities of the medical department.