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Review / Derleme

Military Service and Neurology

Askerlik Hizmeti ve Nöroloji

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Abstract

Determination of the health qualifications of personnel, students, and their candidates, who are members of the Turkish Armed Forces, the General Command of Gendarmerie and the Coast Guard Command has been transferred to Ministry of Health hospitals. One hundred sixty-two hospitals affiliated to the Ministry of Health were authorized to report in this context. The magnitude of this uncertain patient volume, and most importantly, the lack of awareness of the legislation has made the job particularly challenging for neurology specialists. In order to minimize the problems faced by our colleagues after the transfer of military health services and health board processes to the Ministry of Health, which has been performed for about a century in the military system, the most common features of neurologic diseases are presented with report samples.

Keywords: Military service, health qualification, health board report

Öz

Türk Silahlı Kuvvetleri, Jandarma Genel Komutanlığı ve Sahil Güvenlik Komutanlığı mensubu olan personel, öğrenciler ve bunların adaylarının sağlık yeteneklerini tespit etmek, Sağlık Bakanlığı hastanelerine devredilmiştir. Sağlık Bakanlığı'na bağlı 162 hastane, bu kapsamda rapor vermeye yetkilendirilmiştir. Öngörülemeyen bu hasta hacminin büyüklüğü ve en önemlisi de mevzuatın bilinmemesi nedeniyle nöroloji uzmanları belirgin zorluk çekmektedirler. Yaklaşık bir asıra dayanan süredir askeri sistem içerisinde yürütülen askeri sağlık hizmetleri ve sağlık kurulu işlemlerinin Sağlık Bakanlığı'na devrinden sonra meslektaşlarımızın karşılaşabileceği sıkıntıları en aza indirmek amacıyla; nörolojik hastalıklar ile ilişkili özelliklerinden en sık görülenleri, rapor örnekleriyle sunularak bu derleme kaleme alınmıştır.

Anahtar Kelimeler: Askerlik hizmeti, sağlık yeteneği, sağlık kurulu raporu

Introduction

Determining health qualifications in compliance with the duties of the staff who are members of the Turkish Armed Forces (TAF), the Gendarmerie General Command (GGC), and the Coast Guard Command (CGC), and of their students and candidates, and performing the health processes in peace and war are organized by the Regulation on Health Qualifications (RHQ) of the TAF, GGC and, CGC (RHQ) (1). The health processes performed on staff who are members of the TAF, GGC, and CGC and their families and students, military and civil candidates, and citizens obliged for military service, and the procedures and principles of health processes be performed on the staff, families, and candidates as mentioned above in public and private health service providers in Turkey and abroad are determined in the Directive on Health Examination (2).

Although the procedures within the scope of this regulation and the directive have been applied by different stages of military health services for many years, with the "Decision on the principles and procedures concerning the transfer of Military Medical Academy and Military Hospitals" (No. 2016/9109) published in the Official Gazette (No. 29804 on August 17,

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2016) according to the 107th clause of the "Decree Law No. 669 on Taking Some Measures in the Context of the State of Emergency and Establishing the National Defense University and Amending Certain Laws", responsibility has been left to hospitals within the Ministry of Health after the transfer to the Ministry of Health of training hospitals, dispensaries, and similar health units belonging to the Gülhane Military Academy of Medicine, which is in the structure of TAF Health Command and health units belonging to the GGC (3).

Over the years, especially under the title of "epilepsy", there has been an attempt to share the working principles and expectations of the military health system with civil neurology specialists with meetings, seminars, congress, and articles (4,5,6). After the transfer of the TAF health system to the Ministry of Health, these activities continued to meet the demands of civil neurology specialists in the early period (7). With the transfer of the system, 162 hospitals affiliated to the Ministry of Health are authorized to prepare reports in this context (8). Due to the size of this unpredictable patient volume, and most importantly due to a lack of knowing about the legislation, neurology specialists are having significant difficulties.

One of the main reasons for this difficulty is the fact that the processes of military health services are thought to be limited to making decisions as to whether the obligors for military service can perform military service. However, if sampling is made within the military health system, then it will be understood that the regulation is also used to determine whether a captain of infantry can command the union, in which aircraft class an upper lieutenant combat jet pilot will continue to function after recovery of illness, whether health features of an electronic class petty officer first sergeant who is in charge of a submarine allow him to continue his duty, or whether a gendarmenie master sergeant can receive commando training, and the health boards of authorized hospitals have to make these decisions.

The given health board report will affect a staff member's life, will determine or change the class of his duty or even lead to retirement, so this issue should be approached with diligence. In addition, the most important issue that should be known is that every physician is responsible for the report of the health board in person against the legislator. At the same time, as a member of the health board, every physician is also responsible for the accuracy of the content of the report stated in the health board written by a branch that is not related to them and for the compliance of the decision with the legislation as an individual.

In order to minimize the difficulties that our colleagues may face after the transfer of military health services and medical board operations to the Ministry of Health, based on the experience and knowledge gained from many years, the most common features of the reports prepared in the health board for neurologic disorders are presented with examples in this article.

General Information

When we look at the RHQ in general, the first part defines the main purpose and scope. The second part states the characteristics of the health examination of the obliged persons and how and in which health organization the decisions including "not suitable for military service", "delay of referral", "abandonment to the next year" will be taken. According to this, persons who are suitable for military service are defined as those who have no disease or defect in terms of health qualifications, and those who enter the "A" clause of the list of diseases and defects. Persons who are not eligible for military service are defined as those who enter the "B and D" clauses of the list of diseases and defects. The "C" clause involves persons in the recovery or treatment states of the diseases and deficits listed in the "A", "B" and "D" clauses who will not perform military service for a period of time until the final decision is made. The classification of the obliged persons according to their health qualifications such as artillery soldiers or torpedo launching soldiers or whether they can work abroad are also included in this section. The health qualifications of the candidate expert sergeants/corporals, contracted sergeants/corporals and soldiers who are employed and to be employed professionally in TAF, GGC and CGC outside the scope of compulsory service are discussed in the third part, the expert gendarmeries in the fourth part, the military students in the fifth part, and the officers and the petty officers are discussed in the sixth part. In the seventh part, special conditions of Naval Forces and Coastal Security, in the eighth part Air Force and flying personnel are discussed. In the nineth part, the features of trained personnel from external sources, in the tenth part special conditions in which weapons cannot be used, in the eleventh part, health qualifications of the civil personnel, and in the twelfth part clauses related to report-preparing procedures are discussed. As it can be seen, the RHQ covers the sanity procedures of compulsory obligors, and the sanity procedures of all personnel and candidates under the umbrella of the TAF, GGC, and CGC.

The second main section of the regulation includes explanations on the use of the classification or branch designation charts. The meanings of (+), (-), and (x) marks in each rank and class are described and this section also describes how to use the charts. The (+) mark indicates that generals/admirals, officers or petty officers will serve in that class or branch. The (-) mark indicates that generals/admirals cannot be factual continental commanders, but they can perform the duties of staff related to management, administrative, and other services, and that officers and petty officers cannot perform the duties in their classes or branches. The (x) mark indicates that the generals/admirals, officers, and petty officers shall perform their duties in appropriate positions of their classes or branches except in the continental commandship. The appropriate positions are indicated in the directives prepared by the Force Commands, GGC, and CGC. Examples of this issue are given on the relevant pages of the regulation and not mentioned here.

The third section contains a list of the diseases. The items involving neurologic diseases are as follows:

Item 10: Central nervous system (CNS) or its covers and vascular structures,

Item 11: Peripheral nervous system,

Item 12: Epilepsy, electroencephalographic (EEG) abnormalities and non-epileptic paroxysmal disorders,

Item 13: Autonomic nervous system,

Item 18: Sleep disorders (clauses only related to sleep disorders only: A/S-3 and D/S-3),

Item 47: When evaluated in terms of sleep medicine, (according to the centers, sleep medicine can be performed by neurologists, psychiatrists, chest diseases specialists or

otorhinolaryngologists)-this item describes sleep apnea-related conditions (clauses only related to sleep apnea: A/S-1, B/S-1 and D/S-2).

In the fourth main section, there are charts showing classes and branches in which personnel of Land Forces, Naval Forces, Air Forces, GGC and CGC can be assigned according to their diseases. Finally, there is a chart for candidate examination.

Report and Decision Samples According to the Diseases

Item 10:

A) 1. Disorders causing mild dysfunction or sequelae (Arnold-Chiari malformation, hydrocephalus, and all intracranial arachnoid cysts without neurologic or psychiatric findings) of the CNS or its covers (dura, arachnoid and similar) and vascular structures (except vascular pathologies and tumors) are evaluated under this item.

B) 1. Disorders causing moderate dysfunction or sequelae of the CNS, its covers and vascular structures, treated or untreated arteriovenous malformations, cavernous hemangioma, aneurysm and benign tumors of the CNS [all intracranial arachnoid cysts, Evan's rate (ratio of distance between the frontal horns to the maximum biparietal diameter) of more than 30%, hydrocephalus with neurologic or psychiatric findings, and hydrocephalus treated with shunt surgery, syringomyelia (which is shown radiologically with or without neurologic deficits), and benign tumors of the skull bones that push the CNS] are evaluated under this item.

C) Treatment or recovery states of the diseases indicated in clauses A, B and D.

D) Disorders causing severe dysfunction or sequelae of the CNS, its covers and vascular structures; arteriovenous malformations, aneurysms, and tumors of the CNS treated with surgery or other treatment methods resulting in moderate or severe sequelae; malignant pathologies causing or not causing sequelae, hydrocephalus, siringomyelia and arachnoid cysts causing permanent neurologic deficits, which are radiologically demonstrated and supported by electrophysiologic tests, are evaluated under this item.

One of the important conditions that should be emphasized when dealing with this item is that brain tumors, hydrocephalus, and arachnoid cysts, which are decided by neurosurgeons, and peripheral facial paralysis, which can also be decided by otorhinolaryngologists, are evaluated under this item.

The most common disorders of the CNS within the scope of item 10 in young adults in military service age are sequelae of cerebral palsy (CP), multiple sclerosis (MS), essential tremor and cerebral vascular diseases (ischemic stroke, vasculitis, hemorrhages). Other CNS disorders, such as Parkinson's disease (PH) and dementia, are relatively less common in this group of age, but are also considered among other diseases within the scope of this item.

MS especially affects young adults between the ages of 20-40 years. It is a disorder of the CNS and its prevalence is increasing every day. It is the most common cause of disability in young adults after trauma (9,10). Given the regional prevalence studies conducted in our country, it is estimated that there are approximately 50.000 patients with MS in Turkey (11,12,13).

Although MS effects women twice as much as men, patients with MS of military age are frequently admitted to neurologists for military service decisions. Drug reports giving information about the disease and medical history, epicrises, examinations, status reports prepared by the following physicians are important in the decision-making stage because many neurologic diseases are long-term monitored diseases. Decision-making within the scope of item 10 and clause A of the RHQ may require patience compared with other items. We will talk about examples in the process of making an "A" decision in a patient with a diagnosis of demyelinating disorder. The following are scenarios in which the same patient could receive an A, B, or D decision after receiving a C decision twice (Figure 1) in consecutive years.

NEUROLOGY REPORT (DATE/NUMBER)
THIS IS THE FIRST PROCESS OF THE POLLING SOLDIER REFERRED BY THE ... PRESIDENCY OF THE MILITARY DEPARTMENT WITH ... DAY AND ... NUMBER, SON OF (FATHER'S NAME), NAMED (NAME/SURNAME), BORN IN (YEAR/BIRTHPLACE) WITH ... T.C. IDENTITY NUMBER
COMPLAINTS: HEADACHE
ANAMNESIS AND EXAMINATION: CRANIAL MR IMAGING OF 20-YEAR-OLD MALE PATIENT WHO WAS SUFFERING FROM HEADACHE WHICH SPREADS FROM NECK TO FOREHEAD, LASTS 4-5 HOURS, OCCURS 2 DAYS IN A WEEK AND WORSENS WITH FATIGUE AND STRESS, SHOWED LESIONS REPORTED AS DEMYELINATING. CONTROL IMAGING WAS RECOMMENDED. THERE WAS NO HISTORY OF ATTACK AND NEUROLOGIC EXAMINATION WAS IN NORMAL LIMITS. RADIOLOGICALLY ISOLATED SYNDROME WAS CONSIDERED AND FOLLOW-UP IN NEUROLOGY POLYCLINIC WAS RECOMMENDED. IT IS DECIDED TO DELAY MILITARY SERVICE FOR 1 YEAR TO MONITOR THE COURSE OF THE DISEASE.
LABORATORY FINDINGS
CRANIAL MRI (DATE/NUMBER): COMPATIBLE WITH DEMYELINATING DISEASE
DIAGNOSIS: RADIOLOGICALLY ISOLATED SYNDROME
DECISION: C/10, ABANDONMENT TO THE NEXT YEAR

Figure 1. An example of a C/10 report
MRI: Magnetic resonance imaging

After receiving two "C" decisions, if there is no progression in symptoms, clinical, and radiologic findings, then the patient will be given an "A" decision (Figure 2); however, if the patient has another attack, then the diagnosis will be MS and the patient will receive a "B" decision (Figure 3). It is important to note that "C" decisions are primarily preferred when it is not possible to diagnose and/or when it is necessary to evaluate the distribution in time in order to clarify the diagnosis. Furthermore, if a change in clinical course in a short period of time is predicted after the first examination it is supposed that after the first examination of the patient it is possible to change course (as seen in the sample case, this patient has a variable course and can be given "A, B or

NEUROLOGY REPORT (DATE/NUMBER)
THIS IS THE THIRD PROCESS OF THE POLLING SOLDIER REFERRED BY THE ... PRESIDENCY OF THE MILITARY DEPARTMENT WITH ... DAY AND ... NUMBER, SON OF (FATHER'S NAME), NAMED (NAME/SURNAME), BORN IN (YEAR/BIRTHPLACE) WITH ... T.C. IDENTITY NUMBER. FIRST PROCESS: SULTAN ABDULHAMID HAN TRAINING AND RESEARCH HOSPITAL (DATE/NUMBER) C/10 DELAY FOR ONE YEAR. SECOND PROCESS: HAYDARPASA NUMUNE TRAINING AND RESEARCH HOSPITAL (DATE/NUMBER) C/10 DELAY FOR ONE YEAR
COMPLAINTS: NO ACTIVE COMPLAINTS
ANAMNESIS AND EXAMINATION: 22-YEAR-OLD MALE WHO WAS FOLLOWED-UP IN NEUROLOGY POLYCLINIC FOR 2 YEARS BECAUSE OF HAVING DEMYELINATING LESIONS IN CRANIAL MRI PERFORMED 2 YEARS AGO DID NOT DEVELOP NEW LESIONS OR COMPLAINTS IN FOLLOW-UP. LAST NEUROLOGIC EXAMINATION WAS NORMAL. RADIOLOGICALLY ISOLATED SYNDROME IS STILL CONSIDERED AS DIAGNOSIS.
LABORATORY FINDINGS
CRANIAL MRI (DATE/NUMBER): COMPATIBLE WITH DEMYELINATING DISEASE
CRANIAL MRI (DATE/NUMBER): SIMILAR FINDINGS WITH PREVIOUS IMAGING. COMPATIBLE WITH DEMYELINATING DISEASE
CRANIAL MRI (DATE/NUMBER): SIMILAR FINDINGS WITH PREVIOUS IMAGING. COMPATIBLE WITH DEMYELINATING DISEASE
DIAGNOSIS: RADIOLOGICALLY ISOLATED SYNDROME
DECISION: A/10 S-1, SUITABLE FOR MILITARY SERVICE

Figure 2. An example of A/10 S-1 report
MRI: Magnetic resonance imaging

NEUROLOGY REPORT (DATE/NUMBER)
THIS IS THE THIRD PROCESS OF THE POLLING SOLDIER REFERRED BY THE ... PRESIDENCY OF THE MILITARY DEPARTMENT WITH ... DAY AND ... NUMBER, SON OF (FATHER'S NAME), NAMED (NAME/SURNAME), BORN IN (YEAR/BIRTHPLACE) WITH ... T.C. IDENTITY NUMBER. FIRST PROCESS: SULTAN ABDULHAMID HAN TRAINING AND RESEARCH HOSPITAL (DATE/NUMBER) C/10 DELAY FOR ONE YEAR. SECOND PROCESS: HAYDARPASA NUMUNE TRAINING AND RESEARCH HOSPITAL (DATE/NUMBER) C/10 DELAY FOR ONE YEAR
COMPLAINTS: BLURRED VISION, WEAKNESS AND NUMBNESS IN RIGHT SIDE OF THE BODY
ANAMNESIS AND EXAMINATION: 22-YEAR-OLD MALE WHO WAS FOLLOWED-UP IN NEUROLOGY POLYCLINIC BECAUSE OF HAVING DEMYELINATING LESIONS IN CRANIAL MRI PERFORMED 2 YEARS AGO WAS ADMITTED WITH BLURRED VISION 4 MONTHS AGO AND WAS DIAGNOSED AS HAVING OPTIC NEURITIS AND WAS GIVEN STEROID TREATMENT. ONE MONTH AGO, THE PATIENT WAS ADMITTED WITH WEAKNESS AND NUMBNESS IN RIGHT SIDE OF THE BODY AND WAS INITIATED INTERFERON TREATMENT FOLLOWING STEROID TREATMENT AND WAS DIAGNOSED AS HAVING MULTIPLE SCLEROSIS. LAST NEUROLOGIC EXAMINATION SHOWED INCREASED DEEP TENDON REFLEXES AND UNRESPONSIVE PLANTAR REFLEX IN THE RIGHT SIDE.
LABORATORY FINDINGS
CRANIAL MRI (DATE/NUMBER): COMPATIBLE WITH DEMYELINATING DISEASE
CRANIAL MRI (DATE/NUMBER): SIMILAR FINDINGS WITH PREVIOUS IMAGING. COMPATIBLE WITH DEMYELINATING DISEASE
CRANIAL MRI (DATE/NUMBER): THE NUMBER OF LESIONS WERE INCREASED COMPARED WITH PREVIOUS IMAGING AND A FEW ACTIVE LESIONS WERE SEEN.
DIAGNOSIS: DEMYELINATING DISEASE
DECISION: B/10 S-1, NOT SUITABLE FOR MILITARY SERVICE

Figure 3. An example of B/10 S-1 report
MRI: Magnetic resonance imaging

D" decisions), a "C" decision can be decided with observation for a certain period of time and the final decision can be postponed. It is important to note that in cases of sequelae lesions or in cases where there will be minor changes that would not change the decision in time, "B" or "D" should be decided upon rather than "C".

Following two "C" decisions, if the disease shifts to a progressive phase and the patient develops irreversible sequela due to the aggressive course of the disease despite receiving adequate treatment, then this patient will be given a "D" decision (Figure 4).

NEUROLOGY REPORT (DATE/NUMBER)
THIS IS THE THIRD PROCESS OF THE POLLING SOLDIER REFERRED BY THE ... PRESIDENCY OF THE MILITARY DEPARTMENT WITH ... DAY AND ... NUMBER, SON OF (FATHER'S NAME), NAMED (NAME/SURNAME), BORN IN (YEAR/BIRTHPLACE) WITH ... T.C. IDENTITY NUMBER. FIRST PROCESS: SULTAN ABDULHAMID HAN TRAINING AND RESEARCH HOSPITAL (DATE/NUMBER) C/10 DELAY FOR ONE YEAR. SECOND PROCESS: HAYDARPASA NUMUNE TRAINING AND RESEARCH HOSPITAL (DATE/NUMBER) C/10 DELAY FOR ONE YEAR
COMPLAINTS: CLUMSINESS IN HANDS AND DIFFICULTY IN WALKING
ANAMNESIS AND EXAMINATION: 22-YEAR-OLD MALE WHO WAS FOLLOWED-UP IN NEUROLOGY POLYCLINIC BECAUSE OF HAVING DEMYELINATING LESIONS IN CRANIAL MRI PERFORMED 2 YEARS AGO WAS ADMITTED WITH BLURRED VISION 4 MONTHS AGO AND WAS DIAGNOSED AS HAVING OPTIC NEURITIS AND WAS GIVEN STEROID TREATMENT. ONE MONTH AGO, THE PATIENT WAS ADMITTED WITH WEAKNESS AND NUMBNESS IN RIGHT SIDE OF THE BODY AND WAS INITIATED INTERFERON TREATMENT FOLLOWING STEROID TREATMENT AND WAS DIAGNOSED AS HAVING MULTIPLE SCLEROSIS. BUT THE PATIENT'S DISABILITY HAS INCREASED AND SECOND STEP TREATMENT WAS INITIATED. IN LAST EXAMINATION THE PATIENT WAS PARAPARETIC AND COULD WALK WITH WALKER. DEEP TENDON REFLEXES WERE GLOBALLY INCREASED AND PLANTAR REFLEXES WERE BILATERALLY POSITIVE. HE WAS USING AN URINARY CATHETER.
LABORATORY FINDINGS
CRANIAL MRI (DATE/NUMBER): COMPATIBLE WITH DEMYELINATING DISEASE
CRANIAL MRI (DATE/NUMBER): SIMILAR FINDINGS WITH PREVIOUS IMAGING. COMPATIBLE WITH DEMYELINATING DISEASE
CRANIAL MRI (DATE/NUMBER): THE NUMBER OF LESIONS WERE INCREASED COMPARED WITH PREVIOUS IMAGING AND NUMEROUS ACTIVE LESIONS WERE SEEN. ALSO CORTICAL ATROPHY WAS DETECTED.
DIAGNOSIS: DEMYELINATING DISEASE
DECISION: D/10 S-1, NOT SUITABLE FOR MILITARY SERVICE

Figure 4. An example of D/10 S-1 report
MRI: Magnetic resonance imaging

There is still no significant decrease in the incidence of CP and the incidence is reported to be 2.5 in 1000 live births (14). Many of these patients are referred to neurology polyclinics for the decision of military service. A "C" decision should not be given to patients with CP because the current situation is a sequela, there is no recovery period, and a "C" decision will not change the military decision. A patient with very mild sequela will receive an "A", a patient with moderate sequela will get "B", and a patient with cognitive impairment and/or severe motor findings will receive a "D" decision.

It is important to note that it would be correct to decide either "B" or "D" based on the nature of the disease in a patient who has been diagnosed as having juvenile PH. Although both decisions mean "not suitable for military service", those who have been given a "B" decision are reevaluated in the event of mobilization and are recruited in back service and those who are given a "D" decision are not called for duty.

Young patients with stroke can get "A", "B", "C" or "D" decisions due to their present neurologic status, similar to patients with other CNS disorders.

Tremor is also evaluated within item 10. For patients with a new diagnosis of essential tremor and who have not yet received treatment, a "C" decision can be given and the patient can be reevaluated later in the polling. For a tremor that does not impair functionality, an "A" decision can be given in the first examination. A "B" decision is given to patients with uncontrolled tremor despite using drugs, and a "D" decision is given for patients who undergo surgey or treatment with "deep brain stimulation".

In summary, for the decision to be made within the scope of item 10, the neurologic examination is of great importance as in every field of neurology practice. Findings in neurologic examinations mainly lead us to decide whether a person can bear arms. In a newly diagnosed patient, to diagnose the nature of the disease, a decision to exempt military service can be made at most three times, and patients with findings in neurologic examinations and deformities can be exempted from military service from the first examination. The final decision should be made at most three years after the first admission. The issue to be considered as a final decision should be made not after a maximum of three health board procedures, but a maximum of three years. The decision of the patient who is not admitted to military service for a period of two years despite the decision of exemption from military service for one year, should be made at the end of the third year and the extension of the decision of exemption for one more year is not possible. In the health board report prepared after repeated procedures; the dates, decisions, and items on which the decisions are based of the previous health board report should be stated. In the health board report prepared by a neurologist, the findings of the examination should be submitted in detail because a decision can be made based on the findings of the examination.

Patients with inborn brachial plexopathies, hereditary or acquired polyneuropathies, mononeuropathies, especially compression neuropathies, which are listed under paragraph 1 of item 11 and patients with myopathies, muscular dystrophies or inflammatory muscle diseases such as polymyositis and dermatomyositis, which are listed under paragraph 2 of item 11 are often sent to neurologists to make a decision for military service.

Item 11:

A) 1. Sequelae or mild dysfunction of the peripheral nervous system (lesions causing compression in spinal cord or roots or narrowing in foramens are not considered within this scope and are considered according to the 63rd item of this list.)

2. Mild dysfunctions or sequelae due to muscle diseases related with the nervous system.

B) 1. Partial lesions of the peripheral nervous system causing dysfunction (lesions causing compression in the spinal cord or roots or narrowing in foramens are not considered within this scope and are considered according to the 63rd item of this list).

2. Partial lesions due to muscular diseases related with the nervous system causing dysfunction.

C) Treatment and recovery periods of the diseases and disorders stated in (A), (B) and (D) clauses of this item.

D) 1. Untreatable total lesions of the peripheral nervous system (lesions causing compression in the spinal cord or roots or narrowing in foramens are not considered within this scope and are considered according to the 63rd item of this list).

2. Untreatable total lesions due to muscular diseases related with the nervous system.

Polyneuropathy is a clinical picture caused by the widespread impairment of peripheral nerves due to the pathophysiology (15). Patients with hereditary polyneuropathy, a history of Guillain-Barré syndrome (GBS), and polyneuropathy due to drugs such as chemotherapy agents are often sent to neurologists to make a decision for military service. Hereditary neuropathies constitute one of the most common groups of polyneuropathies in young adults and it takes a long time before diagnosis in these patients due to slow disease progression (16,17). There may even be undiagnosed military candidates in the decision-making process. The most common group of hereditary polyneuropathy is Charcot-Marie-Tooth's disease and its prevalence is 40/100.000. Polyneuropathy with liability to pressure palsy is also evaluated in the hereditary group with autosomal dominant inheritance (18). In this age group, other types of polyneuropathy, such as diabetic polyneuropathy, may also be encountered in the military decision. In clinical practice, an "A" decision is not given very often for polyneuropathy. According to the severity of findings in neurologic examinations and electromyographic findings, patients are generally exempted from military service by making "B" or "D" decisions. A "C" decision can be made in a patient with recent GBS and then a final decision can be made based on the sequela. The decision about neuropathies that develop secondary to a trauma or compression is often given by neurosurgeons or physical medicine specialists, although it is not medically, or by regulations, forbidden to neurologists. Nevertheless, it is better for neurosurgeons to decide about traumatic nerve injuries unless the neurologist is the only appropriate physician in a hospital who can make such a decision. Root compression is considered within the 63rd item by neurosurgeons or physical medicine specialists.

An "A" decision can be given to military candidates with an "examination-treatment result" paper and there is no obligation for candidates to be brought to the health board. If there is a controversy or other medical branches are interested in a decision, then the decision is made by the health board.

Myopathy is a muscular disease in which muscle fibers fail to function for various reasons (18). It can be hereditary or acquired. Metabolic myopathies are a group of inherited metabolic muscle diseases caused by genetic enzymatic defects. Acquired myopathies may be caused by drugs, infections, or autoimmune events. Polymyositis and dermatomyositis peak between 40-50 years of age. Although it is more common in women, male military candidates with such a history can also be seen (19,20). Although rare, Duchenne, Becker, and myotonic dystrophies are involved in this group. Muscular diseases are evaluated in the second paragraph of (A), (B) and (D) clauses of the item 11 (Figure 5, 6, 7).

NEUROLOGY REPORT (DATE/NUMBER)
THIS IS THE FIRST PROCESS OF THE POLLING SOLDIER REFERRED BY THE ... PRESIDENCY OF THE MILITARY DEPARTMENT WITH ... DAY AND ... NUMBER, SON OF (FATHER'S NAME), NAMED (NAME/SURNAME), BORN IN (YEAR/BIRTHPLACE) WITH ... T.C. IDENTITY NUMBER.
COMPLAINTS: NUMBNESS IN THE FIRST THREE FINGERS OF RIGHT HAND
ANAMNESIS AND EXAMINATION: 22-YEAR-OLD MALE WAS SUFFERING FROM PROGRESSIVE NUMBNESS IN THE FIRST THREE FINGERS OF RIGHT HAND FOR 2 YEARS WHICH WORSENS IN NIGHTS AND IMPROVES WITH SHAKING THE HAND. IT WAS LEARNED THAT THE PATIENT WAS DIAGNOSED AS HAVING CARPAL TUNNEL SYNDROME AND WAS OPERATED BY NEUROSURGERY AND HIS COMPLAINTS WERE IMPROVED. IN THE PATIENT'S EXAMINATION, OPERATION-RELATED INCISION SCAR AT THE LEVEL OF THE RIGHT WRIST WAS OBSERVED AND NEUROLOGIC EXAMINATION WAS NORMAL.
LABORATORY FINDINGS
EMG (DATE/NUMBER): PREOPERATIVE EMG SHOWED SEVERE IMPAIRMENT OF SENSORIAL AND MOTOR FIBERS IN THE RIGHT HAND SUGGESTING CARPAL TUNNEL SYNDROME.
DIAGNOSIS: CARPAL TUNNEL SYNDROME (COMPRESSION NEUROPATHY OF THE MEDIAN NERVE)
DECISION: A/11 S-1, SUITABLE FOR MILITARY SERVICE

Figure 5. An example of A/11 S-1 report
MRI: Magnetic resonance imaging, EMG: Electromyography

NEUROLOGY REPORT (DATE/NUMBER)
THIS IS THE FIRST PROCESS OF THE POLLING SOLDIER REFERRED BY THE ... PRESIDENCY OF THE MILITARY DEPARTMENT WITH ... DAY AND ... NUMBER, SON OF (FATHER'S NAME), NAMED (NAME/SURNAME), BORN IN (YEAR/BIRTHPLACE) WITH ... T.C. IDENTITY NUMBER.
COMPLAINTS: WEAKNESS IN FEET AND LEGS
ANAMNESIS AND EXAMINATION: A 22-YEAR-OLD MALE PATIENT TOLD THAT HE DID NOT HAVE A SIGNIFICANT COMPLAINT UNTIL HIS ADOLESCENCE, AND THEN HE DEVELOPED A PROGRESSIVE WEAKNESS AND DIMPLING IN HIS FEET, AND IN ADDITION "GLOVES AND SOCKS" TYPE NUMBNESS IN HIS HANDS AND FEET. HE WAS ADMITTED TO A NEUROLOGIST. EXAMINATION, EMG AND GENETIC INVESTIGATIONS SUGGESTED THE DIAGNOSIS OF CHARCOT-MARIE-TOOTH DISEASE. ALSO IT WAS LEARNT THAT WEAKNESS IN HANDS WERE ADDED IN TIME. NEUROLOGIC EXAMINATION SHOWED ATROPHY IN DISTAL PARTS OF LOWER EXTREMITIES, "GLOVES AND SOCKS" TYPE HYPOESTHESIA, GLOBALLY HYPOACTIVE DEEP TENDON REFLEXES AND BILATERAL PES CAVUS.
LABORATORY FINDINGS
EMG (DATE/NUMBER): AXONAL TYPE SENSORIMOTOR POLYNEUROPATHY
DIAGNOSIS: POLYNEUROPATHY
DECISION: B/11 S-1, NOT SUITABLE FOR MILITARY SERVICE

Figure 6. An example of B/11 S-1 report
MRI: Magnetic resonance imaging, EMG: Electromyography

NEUROLOGY REPORT (DATE/NUMBER)
THIS IS THE FIRST PROCESS OF THE POLLING SOLDIER REFERRED BY THE ... PRESIDENCY OF THE MILITARY DEPARTMENT WITH ... DAY AND ... NUMBER, SON OF (FATHER'S NAME), NAMED (NAME/SURNAME), BORN IN (YEAR/BIRTHPLACE) WITH ... T.C. IDENTITY NUMBER.
COMPLAINTS: FATIGUE, PAIN IN HANDS AND FEET, MOVEMENT RESTRICTION
ANAMNESIS AND EXAMINATION: 22-YEAR-OLD MALE PATIENT DEVELOPED MOVEMENT RESTRICTION AND PAIN IN HANDS AND FEET WHILE CLIMBING STAIRS AND THEN DOING DAILY LIFE ACTIVITIES 2 MONTHS AGO. HE DEVELOPED DYSPHAGIA ONE MONTH AGO. HE WAS HOSPITALIZED BY A NEUROLOGIST AND POLYMYOSITIS WAS CONSIDERED AS THE DIAGNOSIS AFTER INVESTIGATIONS WERE PERFORMED. HE INDICATED THAT THE TREATMENT WAS STILL CONTINUING. NEUROLOGIC EXAMINATION SHOWED ATROPHY ESPECIALLY IN PROXIMAL MUSCLES OF LOWER AND UPPER EXTREMITIES.
LABORATORY FINDINGS
AST: 252, ALT: 123, LDH: 1268, CK: 2315 U/L
EMG (DATE/NUMBER): IN THE STUDIED MUSCLES; POLYPHASIC, OFTEN SHORT-TERM AND SMALL-VOLTAGE MOTOR UNIT POTENTIALS AND SPONTANEOUS ACTIVITIES IN THE FORM OF POSITIVE SHARP WAVES, FIBRILLATION POTENTIALS, AND HIGH FREQUENCY POTENTIAL DISCHARGES INDUCED BY NEEDLE MOVEMENT WERE OBTAINED. THESE FINDINGS ARE CONSISTENT WITH A PRIMARY MUSCLE DISEASE AND SUGGEST INFLAMMATORY MUSCLE DISEASE.
THE PATIENT HAS A CURRENT STATUS REPORT (DATE/NUMBER) SIGNED BY DOCTOR... AND THE CHIEF MEDICAL OFFICER.
DIAGNOSIS: POLYMYOSITIS
DECISION: C/11, DELAY OF REFERRAL

Figure 7. Example of a C/11 report
EMG: Electromyography, AST: Aspartate aminotransferase, ALT: Alanine aminotransferase, LDH: Lactate dehydrogenase, CK: Creatine kinase

Military candidates are admitted to neurology polyclinics as polling or referred soldiers. For obligors who are subject to polling, "abandonment to the next year" decision is made and for obligors who are subject to referral, "delay of referral" decision is made. "C" decision will be appropriate for this patient because, treatment process is going on and we need time to evaluate the prognosis of the disease.

In the same way, patients with motor neuron diseases, Duchenne, Becker and myotonic dystrophies often take "D" decision (Figure 8).

NEUROLOGY REPORT (DATE/NUMBER)
THIS IS THE THIRD PROCESS OF THE POLLING SOLDIER REFERRED BY THE ... PRESIDENCY OF THE MILITARY DEPARTMENT WITH ... DAY AND ... NUMBER, SON OF (FATHER'S NAME), NAMED (NAME/SURNAME), BORN IN (YEAR/BIRTHPLACE) WITH ... T.C. IDENTITY NUMBER. FIRST PROCESS: SULTAN ABDULHAMID HAN TRAINING AND RESEARCH HOSPITAL (DATE/NUMBER) C/10 DELAY FOR ONE YEAR. SECOND PROCESS: HAYDARPASA NUMUNE TRAINING AND RESEARCH HOSPITAL (DATE/NUMBER) C/10 DELAY FOR ONE YEAR
COMPLAINTS: FATIGUE, PAIN IN HANDS AND FEET, MOVEMENT RESTRICTION
ANAMNESIS AND EXAMINATION: 24-YEAR-OLD MALE DEVELOPED DYSPHAGIA AND MOVEMENT RESTRICTION AND PAIN IN HANDS AND FEET WHILE CLIMBING STAIRS AND THEN DOING DAILY LIFE ACTIVITIES. HE WAS HOSPITALIZED AND POLYMYOSITIS WAS CONSIDERED AS THE DIAGNOSIS AFTER INVESTIGATIONS WERE PERFORMED. HE INDICATED THAT DESPITE HAVING RECEIVED MANY TREATMENTS, HIS COMPLAINTS WORSENED AND HE COULD MOBILIZE WITH A WHEELCHAIR FOR 6-7 MONTHS. NEUROLOGIC EXAMINATION SHOWED SEVERE PARESIS (1-2/5) AND ATROPHY ESPECIALLY IN PROXIMAL MUSCLES OF LOWER AND UPPER EXTREMITIES.
LABORATORY FINDINGS
AST: 92, ALT: 78, LDH: 488, CK: 600 U/L
EMG (DATE/NUMBER): IN THE STUDIED MUSCLES; POLYPHASIC, AND OFTEN SHORT-TERM MOTOR UNIT POTENTIALS WERE OBTAINED. THESE FINDINGS ARE CONSISTENT WITH A PRIMARY MUSCLE DISEASE AND SUGGEST SEQUELA OF AN INFLAMMATORY MUSCLE DISEASE.
THE PATIENT HAS A CURRENT STATUS REPORT (DATE/NUMBER) SIGNED BY DOCTOR... AND THE CHIEF MEDICAL OFFICER.
DIAGNOSIS: SEQUELA OF POLYMYOSITIS
DECISION: D/11 S-2, NOT SUITABLE FOR MILITARY SERVICE

Figure 8. Example of a D/11 S-2 report
EMG: Electromyography, AST: Aspartate aminotransferase, ALT: Alanine aminotransferase, LDH: Lactate dehydrogenase, CK: Creatine kinase

Item 12:

A) 1. Mild paroxysmal diseases of the nervous system other than epilepsies (patients with headaches without complications are considered healthy).

2. Patients with normal clinical and laboratory findings but exhibit significant findings (focal or generalized spikes, sharp waves, complexes, focal or generalized slow activity) in EEGs (patients without history of blackout who have non-specific EEG abnormalities are considered healthy).

3. Paroxysmal blackouts without specific EEG findings, not diagnosed with definite epilepsy by anamnesis and clinical findings.

4. Epileptic patients who have no specific EEG or imaging findings, but whose seizures are considered as rare due to anamnesis or medical documentation.

B) 1. All epileptic seizures seen by a neurologist or are considered as epileptic seizures by a neurologist due to video recordings during a period of hospitalization in the clinic.

2. (Modification: 22/09/2017 - 2017/10844) Patients whose anamnesis is compatible with epilepsy and who declare to be diagnosed and treated as having epilepsy, patients with an approved report from official health organizations that provide a definitive opinion to the neurologist that they are diagnosed, followed-up, and treated as having epilepsy. DESCRIPTION: The content of the report and the health care provider should be indicated in the health board report.

3. Patients with an anamnesis compatible with epilepsy and with a specific finding in EEG (multiple spike wave, frequent lateralized or generalized spikes, sharp-slow wave complexes)

C) Treatment and recovery periods of the diseases and disorders stated in (A), (B), and (D) clauses of this item

D) 1. Patients with drug-resistant epileptic seizures (patients with cardiazol-induced seizures are not considered as epileptic).

According to the address-based population data of the Turkish Statistical Institute (December 2017), 40.5 million of 80.8 million Turkish citizens are males. The total number of the male population in the 20-40 years age range is 12.9 million (21). Approximately 129.000 of males in the military age are epileptics when we consider the prevalence of epilepsy as an average of 10/10.000 in Turkey, based on the population data of 2017 (22,23,24,25). On the other hand, the prevalence of psychogenic non-epileptic seizures (PNEN) is approximately 1/3.000-1/50.000 (26). According to these data, there were approximately 6.500 patients with epilepsy and 650-1.300 patients with PNEN who applied for military service every year during the survey period. The number of patients with PNEN can be increased even further considering the possible increase in secondary gain during military service.

Epilepsies and EEG abnormalities are evaluated within item 12. Obligors who are classified in (A) clause and who will perform military service can use drugs related to their illness during military service. Having epilepsy does not prevent military service. Each patient is evaluated separately, and the anamnesis, examination, EEG and imaging findings, and response to drugs are evaluated to make a decision. Neurologists have to determine whether a person who has blackouts is epileptic and if they are epileptic, whether they would be able to perform military service in peace or war. In addition to expressing a medical opinion, legal and conscientious responsibility is also undertaken by the neurologist when making this decision.

A routine EEG recording is performed to every obligor who is referred with blackouts. In order to increase the diagnostic power, standard eye opening-closure, hyperventilation, and intermittent photic stimulation are performed during routine EEG recording, and in some cases sleep deprivation is performed. Activation methods can induce the development of specific findings in 11% of EEG records (27). Routine EEG is not the gold standard for the separation of PNEN from epileptic seizures, and also anamnesis may not provide reliable information (28). Documents such as prescriptions, medical records, and reports taken from the centers where patients are being followed-up, and video recording of seizures by phones with cameras guide neurologists in authorized hospitals in decision-making. Medical documentations that give a definitive diagnosis to the specialist can be used during the procedure according to the RHQ. In order to increase the legal validity of the documents, the patient's identity (with picture, if possible), physician's identity (with stamp and signature), and the diagnosis must be clear. The documents presented by the patients such as follow-up forms without a physician's name, prescription copies without a physician's stamp and signature, one-line reports only containing diagnosis of epilepsy and drug name, but not containing information about the patient's follow-up, seizure observation (if possible), and course and duration of

the disease may not be legally accepted as sufficient documents. Neurologists who diagnose and prepare medical reports for drugs are legally responsible in document-based processes. For this reason, neurologists should consider these issues in the preparation of documents for male patients in of military and pre-military age, which can be used as legal documents in the future (7). When necessary, patients should be hospitalized in order to monitor the seizures. The average duration of hospitalization varies between 10-30 days. In a study, 75.5% of patients had seizures within the first 10 days (29). Selected cases can be evaluated with video-EEG monitorization, but it should be considered that it is not compulsory to perform the procedure according to the RHQ. If the anamnesis, examination and laboratory findings or the patient's medical documentations are accurate and adequate, and a certain decision according to the definitions in the RHQ can be given, then sending these patients to an advanced center for video-EEG monitorization would not be correct. Every neurologist, whether or not they have an academic career, has been assessed equally when deciding according to the RHQ. Not making a decision or directing a patient to another center for decision-making brings administrative responsibility.

Sample reports including different decisions will make the subject more understandable (Figure 9).

NEUROLOGY REPORT (DATE/NUMBER)
THIS IS THE FIRST PROCESS OF THE POLLING SOLDIER REFERRED BY THE ... PRESIDENCY OF THE MILITARY DEPARTMENT WITH ... DAY AND ... NUMBER, SON OF (FATHER'S NAME), NAMED (NAME/SURNAME), BORN IN (YEAR/BIRTHPLACE) WITH ... T.C. IDENTITY NUMBER.
COMPLAINTS: BLACKOUT
ANAMNESIS AND EXAMINATION: ACCORDING TO THE PATIENT'S ANAMNESIS; THE FIRST BLACKOUT HAPPENED 1.5 YEARS AGO. HE SAID THAT HE FELT A WEIGHT ON HIS BODY BEFORE HE FAINTED, AND THEN HE DIDN'T REMEMBER. HE HEARD FROM THE PEOPLE AROUND HIM THAT HE WAS CLOSING HIS EYES, PUNCHING HIS HANDS AND WAVING HIS HEAD TO THE LEFT AND RIGHT. IT TOOK THREE TO FIVE MINUTES TO PASS OUT, AND HE HAD THESE ATTACKS ONCE A MONTH. HE USED CARBAMAZEPINE 400 MG/D FOR 2 MONTHS 1 YEAR AGO BUT HE STOPPED USING IT BECAUSE HIS COMPLAINTS WERE NOT IMPROVED. THE LAST TIME HE FAINTED WAS A MONTH AGO. NON-EPILEPTIC SEIZURE WAS OBSERVED DURING THE TIME THE PATIENT WAS HOSPITALIZED IN THE CLINIC.
LABORATORY FINDINGS
EEG (DATE/NUMBER): NORMAL
DIAGNOSIS: PAROXYSMAL BLACKOUT
DECISION: A/12 S-3, SUITABLE FOR MILITARY SERVICE

Figure 9. An example of an A/12 S-3 report
EMG: Electromyography

The patient's anamnesis, EEG findings, and most importantly, seizure characteristics observed during the period of hospitalization are not compatible with epilepsy (Figure 10).

The anamnesis and most importantly, seizure characteristics observed during the patient's hospitalization are compatible with epilepsy. Documentation showing that the patient is followed up in a health center and/or with an EEG recording showing epileptiform abnormality are not required and the decision is made only on clinical observation (Figure 11).

The anamnesis and most importantly, seizure characteristics observed during the patient's hospitalization are compatible with epilepsy. Documentation showing that the patient is followed up in a health center and/or with an EEG recording showing epileptiform abnormality are not required and the decision is made only on clinical observation.

The patient's anamnesis is consistent with epilepsy. The documentation of the patient gives precise belief that the patient has been followed up with this diagnosis and it is not necessary to see epileptiform abnormality in the routine EEG record and/or to hospitalize in the clinic to observe seizures. NOTE: (a) It is recommended that the original document be added to the report. The document must be certified from an official health institution, wet-signed, and approved by the responsible director. (b) If the diagnosis or laboratory results specified in this document are not correct then the physicians who prepared the document are responsible (Figure 12).

NEUROLOGY REPORT (DATE/NUMBER)
THIS IS THE FIRST SANITARY PROCESS OF ... MONTH-SOLDIER REFERRED BY THE ... PRESIDENCY OF THE MILITARY DEPARTMENT WITH ... DAY AND ... NUMBER, SON OF (FATHER'S NAME), NAMED (NAME/SURNAME), BORN IN (YEAR/BIRTHPLACE) WITH ... T.C. IDENTITY NUMBER.
COMPLAINTS: BLACKOUT
ANAMNESIS AND EXAMINATION: ACCORDING TO THE PATIENT'S ANAMNESIS; HE'S BEEN FAINTING SINCE HE WAS A CHILD. HE DID NOT REMEMBER THE MOMENT HE FAINTED. HE HEARD FROM THE PEOPLE AROUND HIM THAT, HE HAD CONTRACTIONS AND TWITCHES ALL OVER HIS BODY, FOAM COMING THROUGH THE MOUTH, BRUISING OF THE FACE, WHEEZING BREATHING. THE BLACKOUTS LASTED 2-3 MINUTES, AND IT TOOK 10-15 MINUTES TO REGAIN HIS CONSCIOUSNESS. AFTER BLACKOUTS HE WAS FEELING TIRED AND HE WAS ASLEEP. HE HAD THESE ATTACKS EVERY DAYS AND HE WAS ADMITTED TO HOSPITAL. HE USED NUMEROUS DRUGS SO FAR AND HE WAS USING CARABAMAZEPINE 400 MG/D RECENTLY. HIS ATTACKS BEGAN TO OCCUR ONCE IN A WEEK. HE HAD URINARY INCONTINENCE AND BLACKOUTS IN SLEEP. THE PATIENT WHO LAST FAINTED A WEEK AGO TOOK HIS LAST DRUG 4 DAYS AGO. AN EPILEPTIC SEIZURE DURING VIDEO EEG MONITORING WAS DETECTED BY DR... IN... AT... O'CLOCK.
LABORATORY FINDINGS
VIDEO EEG (DATE/NUMBER): DURING VIDEO EEG MONITORING, EPILEPTIC SEIZURE WAS OBSERVED AND EEG FINDINGS WERE CONSISTENT WITH ICTAL EEG ACTIVITY.
DIAGNOSIS: EPILEPSY
DECISION: B/12 S-1, NOT SUITABLE FOR MILITARY SERVICE

Figure 10. An example of a B/12 S-1 report
EEG: Electroencephalogram

NEUROLOGY REPORT (DATE/NUMBER)
THIS IS THE FIRST SANITARY PROCESS OF ... MONTH-SOLDIER REFERRED BY THE ... PRESIDENCY OF THE MILITARY DEPARTMENT WITH ... DAY AND ... NUMBER, SON OF (FATHER'S NAME), NAMED (NAME/SURNAME), BORN IN (YEAR/BIRTHPLACE) WITH ... T.C. IDENTITY NUMBER.
COMPLAINTS: BLACKOUT
ANAMNESIS AND EXAMINATION: ACCORDING TO THE PATIENT'S ANAMNESIS; HIS FIRST FAINTING WAS SIX YEARS AGO. HE SOMETIMES KNEW THE BLACKOUT WAS COMING, BUT HE DID NOT REMEMBER THE REST. HE HEARD FROM THE PEOPLE AROUND HIM THAT, HIS BODY WAS CONTRACTING AND HE WAS MAKING WEIRD MOVES AND CONVERSATIONS. HE WAS IN CONFUSION FOR 10-15 MINUTES AFTER A BLACKOUT. HE FAINTED 1-2 IN A MONTH ON AVERAGE. HE LAST FAINTED IN... HE WAS USING CARBAMAZEPINE 400 MG/D. THE PATIENT HAD DRUG USAGE REPORT/CURRENT STATUS REPORT WITH ... DATE AND ... NUMBER, SIGNED BY DR ..., APPROVED BY CHIEF MEDICAL OFFICER, STATING THAT HE WAS FOLLOWED UP WITH THE DIAGNOSIS OF EPILEPSY AND/OR REGULAR MEASURES OF THE SERUM LEVEL OF THE DRUG PERFORMED BETWEEN ... AND ... (DATE). THESE DOCUMENTS SUGGEST THAT THE PATIENT WAS FOLLOWED UP AND TREATED WITH DIAGNOSIS OF EPILEPSY.
LABORATORY FINDINGS
EEG (DATE/NUMBER): NORMAL EEG FINDINGS
DIAGNOSIS: EPILEPSY
DECISION: B/12 S-2, NOT SUITABLE FOR MILITARY SERVICE

Figure 11. An example of a B/12 S-2 report
EEG: Electroencephalogram

NEUROLOGY REPORT (DATE/NUMBER)
THIS IS THE FIRST SANITARY PROCESS OF THE POLLINGSOLDIER REFERRED BY THE ... PRESIDENCY OF THE MILITARY DEPARTMENT WITH ... DAY AND ... NUMBER, SON OF (FATHER'S NAME), NAMED (NAME/SURNAME), BORN IN (YEAR/BIRTHPLACE) WITH ... T.C. IDENTITY NUMBER.
COMPLAINTS: BLACKOUT
ANAMNESIS AND EXAMINATION: ACCORDING TO THE PATIENT'S ANAMNESIS; HE WAS HAVING ABSENCE SEIZURES SINCE HE WAS A CHILD. THESE SEIZURES TOOK 5-10 SECONDS, AND THEN HE WENT ON DOING HIS JOB FROM WHERE HE LEFT IT. HE HEARD FROM THE PEOPLE AROUND HIM THAT HE WAS NOT ANSWERING THE QUESTIONS DURING SEIZURES. AFTER VALPROIC ACID WAS STARTED, SEIZURES WERE CEASED. THE LAST SEIZURE WAS FIVE YEARS AGO. SHE TOOK HER LAST DRUG SIX MONTHS AGO. ACCORDING TO THE REPORT SIGNED BY DR ..., THE PATIENT IS IN THE DRUG CUTTING STAGE, MILITARY SERVICE DECISION IS POSTPONED FOR A PERIOD OF ONE YEAR.
LABORATORY FINDINGS
EEG (DATE/NUMBER): NORMAL EEG FINDINGS
DIAGNOSIS: EPILEPSY
DECISION: C/12, ABANDONMENT TO THE NEXT YEAR

Figure 12. An example of C/12 report
EEG: Electroencephalogram

The patient's anamnesis is consistent with epilepsy during the period of discontinuation of the medication. Routine EEG recording showing epileptiform abnormality and/or hospitalization in the clinic for seizure observation is not required because the patient's document indisputably shows that the patient is in the period of discontinuation of medication. It is not a wrong decision to wait for a period of time because an "A" decision can be made if remission is observed after discontinuation of the drug or a "B" decision can be made if relapse occurs after discontinuation of the drug. NOTE: If the patient is a referred soldier, then "delay of referral", if the patient is a polling soldier, then "abandonment to the next year" would be the decision. The status of soldiers is written in their military branch documents.

Item 13:

A) 1. Mild-to-moderate disorder or dysfunction of the autonomic nervous system.

B) 1. Reflex sympathetic dystrophy (the decision is made based on the localization and nature of the disease due to the 43rd, 58th or 64th items of this list).

C) Treatment and recovery periods of the diseases and disorders stated in (A), (B), and (D) clauses of this item.

D) 1. Severe disorder or dysfunction of the autonomic nervous system.

Decisions about the autonomic nervous system are rarely made in clinical practice. In the case of accompanying CNS disease, the 10th item is used for the decision. A case of congenital Horner syndrome is shown in Figure 13.

NEUROLOGY REPORT (DATE/NUMBER)
THIS IS THE FIRST SANITARY PROCESS OF THE SOLDIER REFERRED BY THE ... PRESIDENCY OF THE MILITARY DEPARTMENT WITH ... DAY AND ... NUMBER, SON OF (FATHER'S NAME), NAMED (NAME/SURNAME), BORN IN (YEAR/BIRTHPLACE) WITH ... T.C. IDENTITY NUMBER.
COMPLAINTS: ANHYDROSIS IN THE LEFT SIDE OF THE FACE, BLURRED VISION IN THE LEFT EYE IN NIGHTS
ANAMNESIS AND EXAMINATION: THE PATIENT INDICATED THAT HE WAS SUFFERING FROM ANHYDROSIS IN THE LEFT SIDE OF THE FACE AND BLURRED VISION IN THE LEFT EYE IN NIGHTS SINCE HE WAS A CHILD AND HE WAS DIAGNOSED AS HAVING HORNER'S SYNDROME. IN NEUROLOGIC EXAMINATION; HE HAD PTOSIS AND MYOSIS IN THE LEFT EYE. THE LEFT IRIS WAS GREEN AND THE RIGHT IRIS WAS BROWN
DIAGNOSIS: HORNER'S SYNDROME
DECISION: A/13 S-1, SUITABLE FOR MILITARY SERVICE

Figure 13. An example of A/13 S-1 report

Item 18: (Paragraphs not related with sleep disorders are not described here).

A) 3. Mild sleep disorders. DESCRIPTION: Sleep disorders that are not defined in the (D) clause and which are considered not to have a significant effect on functioning.

C) Treatment and recovery periods of the diseases and disorders stated in (A), (B), and (D) clauses of this item.

D) 3. Chronic sleep disorders (narcolepsy, Klein-Levine syndrome, idiopathic CNS hypersomnia, chronic hypersomnia, chronic insomnia or parasomnia) DESCRIPTION: Patients who are considered to be non-functional when evaluated with clinical observation and polysomnographic records and who also do not benefit from treatment.

Sleep disorders are defined within the 18th item with psychiatric disorders. This item involves psychiatric disorders such as tic disorders and sleep disorders are defined only in the third paragraphs. This is why not all the paragraphs are taken into consideration, but only the part that is related to sleep. Also there are no paragraphs in "B" clause of the item that involves sleep disorders. Either "A" or "D" decisions can be made for sleep disorders.

A large-scale multi-centered prevalence study conducted in Turkey showed that the rates of insomnia, sleep breathing disorders, and excessive daytime sleepiness were 10.9%, 2.3%, and 3.8%, respectively, in the 18-24 years age group in male patients (30). These findings show that sleep disorders are common in young males and neurologists may encounter patients with sleep disorders in the decision-making process for military service.

If the diagnosis of narcolepsy is definite, then a "D" decision should be made. In this case, polysomnography and a multiple sleep latency test, which are included in the diagnostic criteria of the disease, should be carried out and the data supporting the diagnosis should be written in the content of the report (Figure 14). Diagnosing parasomnia is a difficult process. It is necessary to objectively show that the person has parasomnia by means of methods such as PSG, which is a video recording, and to show that the person's functionality is impaired by documents such as continent questionnaires and that they do not benefit from the treatment (Figure 15). In patients without a history of previuos treatment and patients who cannot show that they have been followed-up and treated with the diagnosis of parasomnia, a decision should not be made immediately and should be made after adequate follow-up. It would be appropriate to make an "A" decision in sleep disorders in which the functionality of a patient does not deteriorate significantly.

Obstructive sleep apnea is also discussed within item 47 under the title of "chest disorders". For an "A" decision, only the first paragraph and for "B" and "D" decisions, only the second paragraph can be choosen.

Item 47: (Paragraphs not related with sleep apnea patients are not described here).

A) 1. Patients with sleep apnea having an apnea-hypopnea index lower than 15 (15 is not included) following titration of positive airway pressure (PAP).

NEUROLOGY REPORT (DATE/NUMBER)
THIS IS THE FIRST SANITARY PROCESS OF THE SOLDIER REFERRED BY THE ... PRESIDENCY OF THE MILITARY DEPARTMENT WITH ... DAY AND ... NUMBER, SON OF (FATHER'S NAME), NAMED (NAME/SURNAME), BORN IN (YEAR/BIRTHPLACE) WITH ... T.C. IDENTITY NUMBER.
COMPLAINTS: UNPREVENTABLE SLEEP ATTACKS DURING DAY, SHORT-TIME MUSCLE WEAKNESS ATTACKS WHEN EXCITED OR LAUGHING
ANAMNESIS AND EXAMINATION: ACCORDING TO THE PATIENT'S ANAMNESIS; SLEEP ATTACKS ESPECIALLY IN SCHOOL COURSES AND MONOTONE CONDITIONS BEGAN WHEN HE WAS 14 YEARS OLD. HE WAS MISSING BUS STOPS WHEN TRAVELLING WITH PUBLIC TRANSPORT. HE DREAMED WHEN HE FELL ASLEEP. HE FELT RESTED AND VIGOROUS AFTER THESE SHORT SLEEP PERIODS. ALTHOUGH THE SLEEP HOURS WERE REGULAR, IT IS UNDERSTOOD THAT THE NIGHT'S SLEEP WAS OFTEN INTERRUPTED, BUT HE WOKE UP RESTED IN MORNINGS. A YEAR AFTER THE INITIATION OF SLEEP COMPLAINTS, ESPECIALLY WHEN HE WAS LAUGHING OR EXCITED, SUDDEN WEAKNESS ATTACKS IN THE LEGS (CATAPLEXY) WHICH CAUSED FALLING ON THE GROUND WERE ADDED. HE DESCRIBED RARE SLEEP PARALYSIS ATTACKS SINCE HE WAS A CHILD. NEUROLOGIC EXAMINATION WAS NORMAL.
LABORATORY FINDINGS
POLYSOMNOGRAPHY PERFORMED IN ... RESEARCH AND TRAINING HOSPITAL (16.05.2006/435): TOTAL RECORDING TIME: 480 MIN, TOTAL SLEEP TIME: 376 MIN, SLEEP LATENCY: 2 MIN, REM LATENCY: 6 MIN, DURATION OF WAKEFULNESS AFTER SLEEP: 67 MIN, THE PERCENTAGE OF SLEEP PERIOD 1: 23, THE PERCENTAGE OF SLEEP PERIOD 2: 35, THE PERCENTAGE OF SLEEP PERIOD 3: 14, THE PERCENTAGE OF REM SLEEP: 17, HYPOPNEA AND APNEA INDEXES: 0.9/HOUR, THE TOTAL LEG MOVEMENTS INDEX: 7/HOUR, PERIODIC LEG MOVEMENTS INDEX: 2/HOUR, OXYGEN DESATURATION INDEX: 0.6, AVERAGE OXYGEN SATURATION: %94, LOWEST OXYGEN SATURATION: %86. IN THE STUDY OF MULTIPLE SLEEP LATENCY TEST (17.05.2006/436): 5 STUDIES CONDUCTED WITHIN 2 HOURS OF INTERVAL: AVERAGE SLEEP LATENCY: 5.2 MIN AND SLEEP ONSET REM (SOREM) WAS OBSERVED IN 3 OF 5 STUDIES.
DIAGNOSIS: NARCOLEPSY (WITH CATAPLEXY)
DECISION: D/18 S-3, NOT SUITABLE FOR MILITARY SERVICE

Figure 14. An example of D/18 S-3 report

NEUROLOGY REPORT (DATE/NUMBER)
THIS IS THE FIRST SANITARY PROCESS OF THE SOLDIER REFERRED BY THE ... PRESIDENCY OF THE MILITARY DEPARTMENT WITH ... DAY AND ... NUMBER, SON OF (FATHER'S NAME), NAMED (NAME/SURNAME), BORN IN (YEAR/BIRTHPLACE) WITH ... T.C. IDENTITY NUMBER.
COMPLAINTS: WAKING UP AT NIGHT, HURTING HIMSELF AND SURROUNDING PEOPLE
ANAMNESIS AND EXAMINATION: ACCORDING TO THE PATIENT'S ANAMNESIS; THE PATIENT'S COMPLAINTS BEGAN AT THE AGE OF 15 YEARS OLD. HE BEGAN TO AWAKEN SUDDENLY FROM SLEEP AT NIGHT, HURT HIMSELF AND SURROUNDING PEOPLE. HIS RELATIVES TRIED TO CALM HIM DOWN, BUT HE DID NOT REMEMBER. THE PATIENT WAS DIAGNOSED AS HAVING PARASOMNI AND THE DRUG TREATMENT WAS STARTED. ALTHOUGH THE PATIENT REGULARLY USED THE DRUGS HE DID NOT BENEFIT FROM THE TREATMENT. IN THE CONTINENTAL SURVEY FORM, IT SAYS THAT HE WOKE UP AT NIGHT, HARMED HIMSELF AND HIS WARD FRIENDS, AND THAT HE HAS BEEN ASSIGNED ANOTHER SOLDIER TO PREVENT HIM FROM GETTING HURT, AND HIS FUNCTIONALITY WAS DETERIORATED.
LABORATORY FINDINGS
POLYSOMNOGRAPHY PERFORMED IN ... RESEARCH AND TRAINING HOSPITAL (16.05.2006/435): TOTAL RECORDING TIME: 480 MIN, TOTAL SLEEP TIME: 376 MIN, SLEEP LATENCY: 2 MIN, REM LATENCY: 6 MIN, DURATION OF WAKEFULNESS AFTER SLEEP: 67 MIN, THE PERCENTAGE OF SLEEP PERIOD 1: 23, THE PERCENTAGE OF SLEEP PERIOD 2: 35, THE PERCENTAGE OF SLEEP PERIOD 3: 14, THE PERCENTAGE OF REM SLEEP: 17, HYPOPNEA AND APNEA INDEXES: 0.9/HOUR, THE TOTAL LEG MOVEMENTS INDEX: 7/HOUR, PERIODIC LEG MOVEMENTS INDEX: 2/HOUR, OXYGEN DESATURATION INDEX: 0.6, AVERAGE OXYGEN SATURATION: %94, LOWEST OXYGEN SATURATION: %86. MOTION ARTIFACTS WERE SEEN IN THE N3 STAGE OF SLEEP DURING THE PATIENT'S RECORDING. SIMULTANEOUS VIDEO RECORDING SHOWED THAT THE PATIENT WAS TRYING TO GET OUT OF BED AND OPEN THE WINDOW AND HE WAS STOPPED BY HIS COMPANION AND SLEEP TECHNICIAN.
DIAGNOSIS: PARASOMNIA
DECISION: D/18 S-3, NOT SUITABLE FOR MILITARY SERVICE

Figure 15. An example of D/18 S-3 report

B) 2. Patients with sleep apnea having apnea-hypopnea index of 15-30 (30 is not included) following titration of PAP.

C) Treatment and recovery periods of the diseases and disorders stated in (A), (B), and (D) clauses of this item.

D) 2. Patients with sleep apnea having apnea-hypopnea index of 30 or higher following titration of PAP.

It is important to note that the apnea-hypopnea index measured after PAP titration is used in decision-making, not the index measured in standard polysomnography. It is relatively easy to make a decision on the numeric data (Figure 16). However, accurate PAP titration is of great importance.

Administrative Issues to be Considered

Whatever the diagnosis and decision, utmost care and attention should be given to the documents of the personnel and to some issues during the procedure:

1. All personnel who will go to the health board apply to the hospital with a letter of referral issued by the relevant authorities. The authority who prepares the letter of referral shall state the purpose of examination of the personnel in the letter. Referral of soldiers and obligors is made with a signed letter containing the Republic of Turkey identification number and photo (sealed/cold stamped and with adhesive acetate). Duplicated photos with a photocopy are not used in the processes of the health board. In patient admission, the referral paper must be checked and the decision must be in response to the cause of the referral.

2. The candidate's identity must be carefully assessed. Assessing whether the referred patient is always the same person as the examined (e.g. EEG) patient and the patient evaluated in the health board is very important. It is known that without checking identities, EEG records of patients with epilepsy have been used in making "not suitable for military service" decisions in normal healthy individuals in the past. Responsibility is always

NEUROLOGY REPORT (DATE/NUMBER)
THIS IS THE FIRST SANITARY PROCESS OF THE SOLDIER REFERRED BY THE ... PRESIDENCY OF THE MILITARY DEPARTMENT WITH ... DAY AND ... NUMBER, SON OF (FATHER'S NAME), NAMED (NAME/SURNAME), BORN IN (YEAR/BIRTHPLACE) WITH ... T.C. IDENTITY NUMBER.
COMPLAINTS: SLEEPINESS DURING THE DAY, LACK OF CONCENTRATION
ANAMNESIS AND EXAMINATION: IT WAS EXPRESSED BY THE RELATIVES OF THE PATIENT THAT HE HAD CUT HIS BREATH DURING THE NIGHT. HE SAID THAT HE COULD NOT WAKE UP VIGOR IN THE MORNING, THAT HE HAD HEADACHE WHEN HE WOOK UP IN THE MORNING, THAT HIS MOUTH WAS DRY, AND THAT HE SUFFERED FROM FATIGUE DURING THE DAY. NEUROLOGIC EXAMINATION WAS NORMAL.
LABORATORY FINDINGS
POLYSOMNOGRAPHY PERFORMED IN ... RESEARCH AND TRAINING HOSPITAL (16.05.2006/435): TOTAL RECORDING TIME: 480 MIN, TOTAL SLEEP TIME: 376 MIN, SLEEP LATENCY: 2 MIN, REM LATENCY: 6 MIN, DURATION OF WAKEFULNESS AFTER SLEEP: 67 MIN, THE PERCENTAGE OF SLEEP PERIOD 1: 23, THE PERCENTAGE OF SLEEP PERIOD 2: 35, THE PERCENTAGE OF SLEEP PERIOD 3: 14, THE PERCENTAGE OF REM SLEEP: 17, HYPOPNEA AND APNEA INDEXES: 35/HOUR, THE TOTAL LEG MOVEMENTS INDEX: 7/HOUR, PERIODIC LEG MOVEMENTS INDEX: 2/HOUR, OXYGEN DESATURATION INDEX: 0.6, AVERAGE OXYGEN SATURATION: %94, LOWEST OXYGEN SATURATION: %86.
POLYSOMNOGRAPHY PERFORMED IN OUR CLINIC (17.10.2017/214): TOTAL RECORDING TIME: 488 MIN, TOTAL SLEEP TIME: 415 MIN, SLEEP LATENCY: 1 MIN, REM LATENCY: 1 MIN, DURATION OF WAKEFULNESS AFTER SLEEP: 65 MIN, THE PERCENTAGE OF SLEEP PERIOD 1: 21, THE PERCENTAGE OF SLEEP PERIOD 2: 28, THE PERCENTAGE OF SLEEP PERIOD 3: 19, THE PERCENTAGE OF REM SLEEP: 17, HYPOPNEA AND APNEA INDEXES: 34.6/HOUR, THE TOTAL LEG MOVEMENTS INDEX: 7/HOUR, PERIODIC LEG MOVEMENTS INDEX: 2/HOUR, OXYGEN DESATURATION INDEX: 14.6, AVERAGE OXYGEN SATURATION: %94, LOWEST OXYGEN SATURATION: %86.
PAP TITRATION STUDY PERFORMED IN OUR CLINIC (18.10.2017/214): TOTAL RECORDING TIME: 488 MIN, TOTAL SLEEP TIME: 415 MIN, SLEEP LATENCY: 1 MIN, REM LATENCY: 1 MIN, DURATION OF WAKEFULNESS AFTER SLEEP: 65 MIN, THE PERCENTAGE OF SLEEP PERIOD 1: 21, THE PERCENTAGE OF SLEEP PERIOD 2: 28, THE PERCENTAGE OF SLEEP PERIOD 3: 19, THE PERCENTAGE OF REM SLEEP: 17, HYPOPNEA AND APNEA INDEXES: 17/HOUR, THE TOTAL LEG MOVEMENTS INDEX: 7/HOUR, PERIODIC LEG MOVEMENTS INDEX: 2/HOUR, OXYGEN DESATURATION INDEX: 14.6, AVERAGE OXYGEN SATURATION: %94, LOWEST OXYGEN SATURATION: %86.
DIAGNOSIS: OBSTRUCTIVE SLEEP APNEA SYNDROME
DECISION: B/47 S-2, NOT SUITABLE FOR MILITARY SERVICE

Figure 16. An example of B/47 S-2 report

the responsibility of the physician who prepares the health board report; therefore, it is necessary to be careful about this issue.

3. The format and the content of the health board report are regulated by rules. See related articles (2,7).

4. The candidate's symptoms causing referral to the health board, the anamnesis, disease and family history, and examination findings are explained. Finally, laboratory results to support the diagnosis of the disease, if any, surgical information determining the diagnosis, and clinical decision are written and the report is finalized and signed by the physician. The results of laboratory findings are written below the health board report with the protocol number, indicating in which laboratory the tests are performed. External reports (e.g. drug reports, report of laboratory results) should be approved by the chief physician or the liable manager of the hospital. The diagnosis and decision of the report are written in accordance with the items, clauses, and paragraphs in the list of diseases stated in the RHQ.

Conclusion

In this article, it was aimed to introduce the health board procedures with explanatory samples of the personnel, students, and their candidates who are members of the TAF, GGC, and CGC, performed by the neurologists in the centers authorized by the Ministry of Health. In order to make more accurate, quick, and reliable decisions about patients with neurologic diseases, the decision mechanisms and procedures are explained to the neurologists to guide them. All these tasks have been transferred to the hospitals affiliated with the Ministry of Health with the

decree law No. 669. Our colleagues have always been under an administrative burden that they know, but now they are more likely to make mistakes because of lack of practice. The purpose of this article is to inform and guide neurologists and to support them to take care not to face any administrative problems over the years and to share our experience. Of course, every patient should be evaluated individually, but it is aimed to make the subject more understandable with the report samples written on fictitious patients.

In the preparation of administrative reports, such as military service reports, regardless of experience, level of knowledge, and laboratory facilities, the assumption that malicious people can use the system out of purpose should always be kept in mind and the necessary measures should be taken.

Ethics

Peer-review: Externally and internally peer-reviewed.

Authorship Contributions

Concept: Z.G., S.B., Design: Z.G., S.B., Data Collection or Processing: S.B., G.K., S.D., Analysis or Interpretation: S.B., G.K., S.D., Z.G., Literature Search: S.B., G.K., S.D., Writing: S.B., G.K., S.D., Z.G.

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