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Treatment Guidelines for Patients with Schizophrenia or Psychotic Disorder who are Hospitalized in a Psychiatry Clinic

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ÖZET:

Psikiyatri kliniğine yatırılan şizofreni ve psikotik bozukluğu olan hastaların tedavi rehberi

Şizofrenide hastaneye yatış, genellikle kendine veya başkalarına ciddi tehdit oluşturan veya kendilerine bakamayacak derecede dezorganize olmuş ya da sanrıların/varsanıların etkisi altında olan hastalar için endikedir. Avrupa ülkelerinden şizofreni hastalarının akut yönetimi konusunda uzman, 19 psikiyatristin oluşturduğu Hastane Ortamı Uzman Kurulu (Hospital Setting Expert Committee [HSEC]) tarafından belirlenmiş olan şizofrenili ve psikotik hastaların hastanede kaldıkları süre boyunca izlenmesi gereken basamaklar 7 başlık halinde ayrı algoritmalar (Algoritma 1- Akut psikotik atağın değerlendirilmesi; Algoritma 2- Yataklı tedavi için tedavi hedeflerinin tanımlanması; Algoritma 3- Acil durum yönetimi; Algoritma 4- Yataklı tedavi sırasında tedavi hedeflerinin tanımlanması; Algoritma 5- Hastaneye yatış sırasında ilaç tedavisi; Algoritma 6- Yataklı tedavi sırasında ilaç dışı tedavi; Algoritma 7- İyilik halinin artırılması) şeklinde düzenlenmiştir. Bu rehberin ülkemizin koşullarına uygun şekilde revize edilmiş Türkiye versiyonu sekiz psikiyatri kliniğinde kullanılarak değerlendirilmiştir. Hastaneye yatırılan şizofreni hastalarında bu algoritmaların uygulanması, hastaların yönetiminde ve sosyal yaşama katılımlarının hızlandırılmasında hekimlere yardımcı olabilir.

Anahtar sözcükler: şizofreni, tedavi, algoritma, hastane tedavisi, tedavi rehberi

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ABSTRACT:

Treatment guidelines for patients with schizophrenia or psychotic disorder who are hospitalized in a psychiatry clinic

In schizophrenia, hospitalization is generally indicated for patients who pose a serious threat to themselves or others, those who are disorganized to the extent of not to being able to look after themselves or who are experiencing delusions/hallucinations. The steps to be taken during the time hospitalization of patients with schizophrenia and psychosis as determined by the Hospital Setting Expert Committee (HSEC), consisting of 19 psychiatrists from Europe, who are specialists in the acute management of schizophrenia patients, have been arranged under 7 topics in the form of algorithms (Algorithm 1- Assessing the acute psychotic episode; Algorithm 2- Defining treatment targets for inpatient treatment; Algorithm 3- Emergency management; Algorithm 4- Defining treatment targets during inpatient treatment; Algorithm 5- Pharmacological treatment at the time of hospitalization; Algorithm 6- Non-pharmacological treatment during inpatient treatment; Algorithm 7- Improvement of well-being. The Turkish version of this guideline, which was revised to meet the conditions in our country, was used and tested in eight psychiatry clinics. Following these algorithms for hospitalized schizophrenia patients may be helpful for doctors in managing the patients and facilitating their participation in social life.

Keywords: schizophrenia, treatment, algorithm, hospital treatment, treatment guideline

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INTRODUCTION

Schizophrenia is a mental disorder that impairs psychosocial functioning, leads to disability and usually lasts lifelong. There are three fundamental targets in the treatment of schizophrenia:[1] diminishing or eradicating the symptoms,[2] improving psychosocial functioning and quality of life to a maximum degree, and[3] supporting recovery in a way to help gain personal life goals. This treatment process involves mainly two periods, the acute phase and the maintenance phase. The acute phase begins with a new episode or an acute relapse of the symptoms and continues until the symptoms diminish or regress to a level of "recovery" expected by the patient. The maintenance phase follows the acute phase and the treatment is continued therein. The maintenance phase consists of a long-term treatment period and rehabilitation[1].

In schizophrenia, hospitalization is generally indicated for the patients who pose a serious threat to themselves or others, those who are disorganized to the extent of not to being able to look after themselves or who are experiencing delusions/hallucinations. Other possible indications include the presence of general medical or psychiatric problems that may render outpatient treatment unsafe or ineffective[1]. Some schizophrenia patients in the maintenance phase may be hospitalized in a psychiatry clinic for the purpose of improving their psychosocial functioning and for rehabilitation.

The major aim of acute hospitalization is to facilitate rapid reversal of acute symptoms by creating a safe and stress-free treatment environment. For this reason, the hospital setting should be arranged to fulfill this aim[2]. A short-term hospitalization has been shown to be as effective as a long-term hospitalization for acute patients whose psychotic symptoms can be improved rapidly by way of antipsychotic treatment[2,3]. In studies carried out in the United States of America, the efficiency of the shortest hospitalization time, 11 days, has been compared to that of 60 days of hospitalization[3]. In a study conducted in the United Kingdom, the efficiency of an average of 9 days of hospitalization time was compared to a period of 14 days[4]. The common result of all studies indicates that the improvement in symptoms during long-term hospitalizations is not superior to that of short-term hospitalizations in terms of social adaptation and the time it takes the patient to return to the hospital[5-15].

Another issue, not less important than the efficiency of hospitalization time is managing the patient in the most effective way during hospitalization. There are not adequate assessments and recommendations about the roadmap to be followed for hospitalized patients in the schizophrenia treatment guidelines prepared by the World Federation of Societies of Biological Psychiatry (WFSBP) and the American Psychiatric Association (APA). Thus, doctors are in need of detailed diagnosis and treatment guidelines for patients with schizophrenia and psychotic disorders who are hospitalized in a psychiatry clinic.

The steps to be taken to treat patients diagnosed with schizophrenia and psychotic disorder in an optimal way during the time they stay in a hospital and then to reintegrate them into the society have been documented by the Hospital Setting Expert Committee (HSEC) consisting of 19 psychiatrists from Europe including the first author of this paper (the list of doctors comprising this team is in Annex-1), who are specialists in the acute management of schizophrenia patients. The committee held a meeting in May 2012 to discuss some specific subjects regarding the treatment of such patients in a hospital setting. It was found at the end of this meeting that specific recommendations regarding the management of these patients in a hospital setting were insufficient in the existing guidelines. Therefore, it was decided to develop a treatment guideline that can be used for these patients in a hospital setting. The first version of the algorithm was prepared in a way to focus on the acute care contained in the current guidelines. The topics in the algorithm were

assessment of the patient, application, management of agitation and aggression, pharmaceutical treatment, non-pharmaceutical treatment and stabilization. The draft guideline prepared in March was reviewed by this committee and revised in line with the clinical experience and interpretation of the group. The preparation of this guideline was sponsored by the Janssen Pharmaceutical Company.

A long-term comprehensive approach was developed by considering acute care from the beginning of the disease, the process of leaving the hospital and the care of the patient in the community. In this way, a guideline was prepared, which contains a separate algorithm for each of the 7 topics covering the period starting from the time prior to the admission of the patient to the hospital through the time after his/her leaving the hospital. The guideline, called "Treatment Guideline for Hospitalized Patients with Schizophrenia and Psychotic Disorder", was adapted to the procedures in Turkey by the authors of this article. This article deals with the Turkish version of the guideline, which was revised to meet the conditions in our country and the study data produced by using this version.

METHOD

The "Treatment Guideline for Hospitalized Patients with Schizophrenia" that was prepared by the Hospital Setting Expert Committee was modified to take into account local procedural conditions by a team consisting of eight specialist psychiatrists from different centers in Turkey. The guideline was then administered in various psychiatry clinics by the same team and was put into its final form.

The "Treatment Guideline for Hospitalized Patients with Schizophrenia and Psychotic Disorder":

The algorithms for each of the 7 topics covering the period starting from the time prior to the admission of schizophrenia patients to a hospital through the time after their leaving the hospital are as follows:

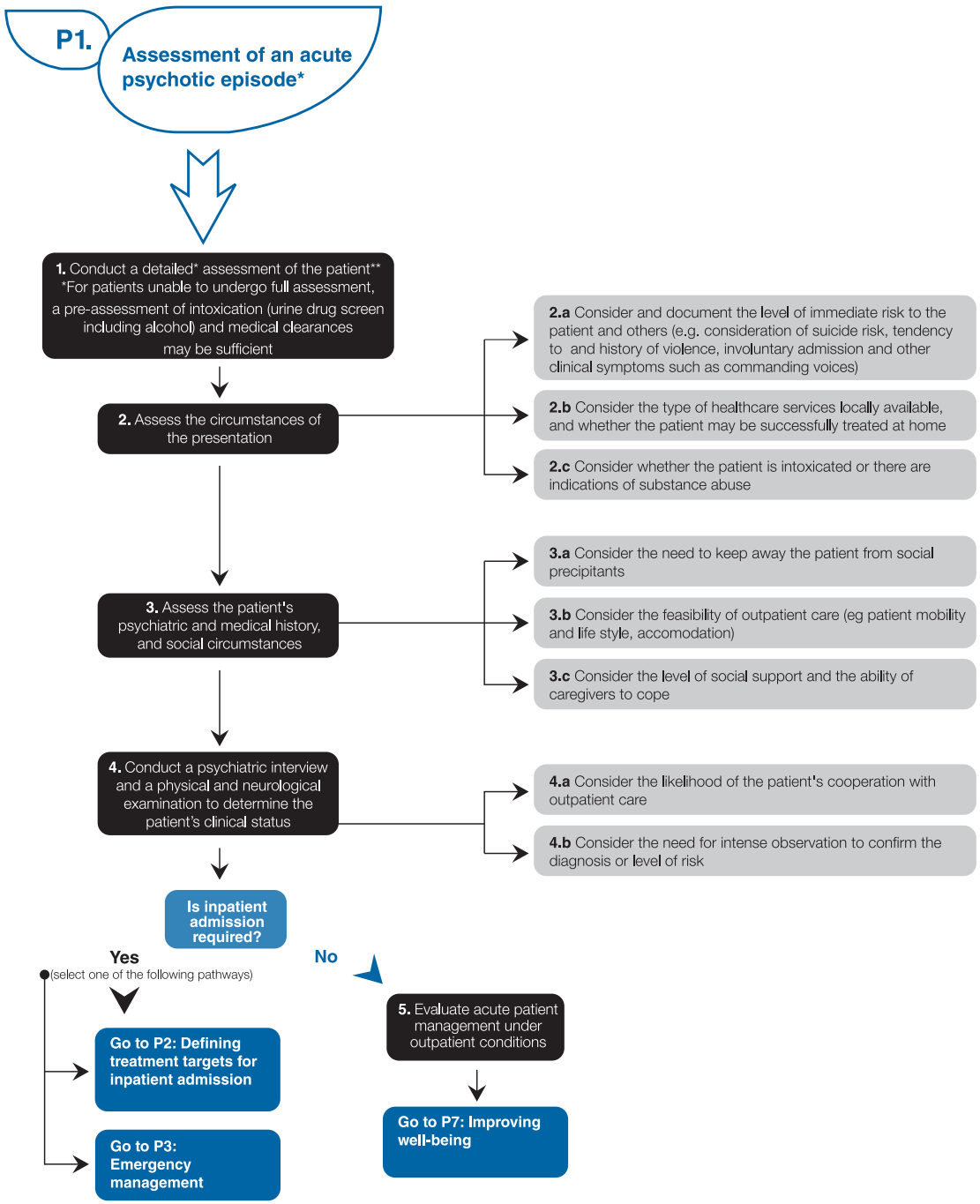
(1) Assessing the acute psychotic episode
(2) Defining treatment targets for inpatient treatment
(3) Emergency management
(4) Defining treatment targets during inpatient treatment
(5) Pharmacological treatment at the time of hospitalization
(6) Non-pharmacological treatment during inpatient treatment
(7) Improvement of well-being

Algorithm 1. Assessing the acute psychotic episode

In assessing the acute psychotic episode, the purpose is to assess the patient in detail at the first step. For patients who are not in a position to undergo a thorough full assessment, an initial assessment involving intoxication and medical values would be sufficient. Then, the circumstances at the time of the patient's admission would be assessed. At the third step, the patient's psychiatric and medical history, and social conditions would be assessed and finally a psychiatric interview and a physical and neurologic examination would be carried out to determine the patient's clinical condition. The steps of this algorithm are summarized in Figure 1.

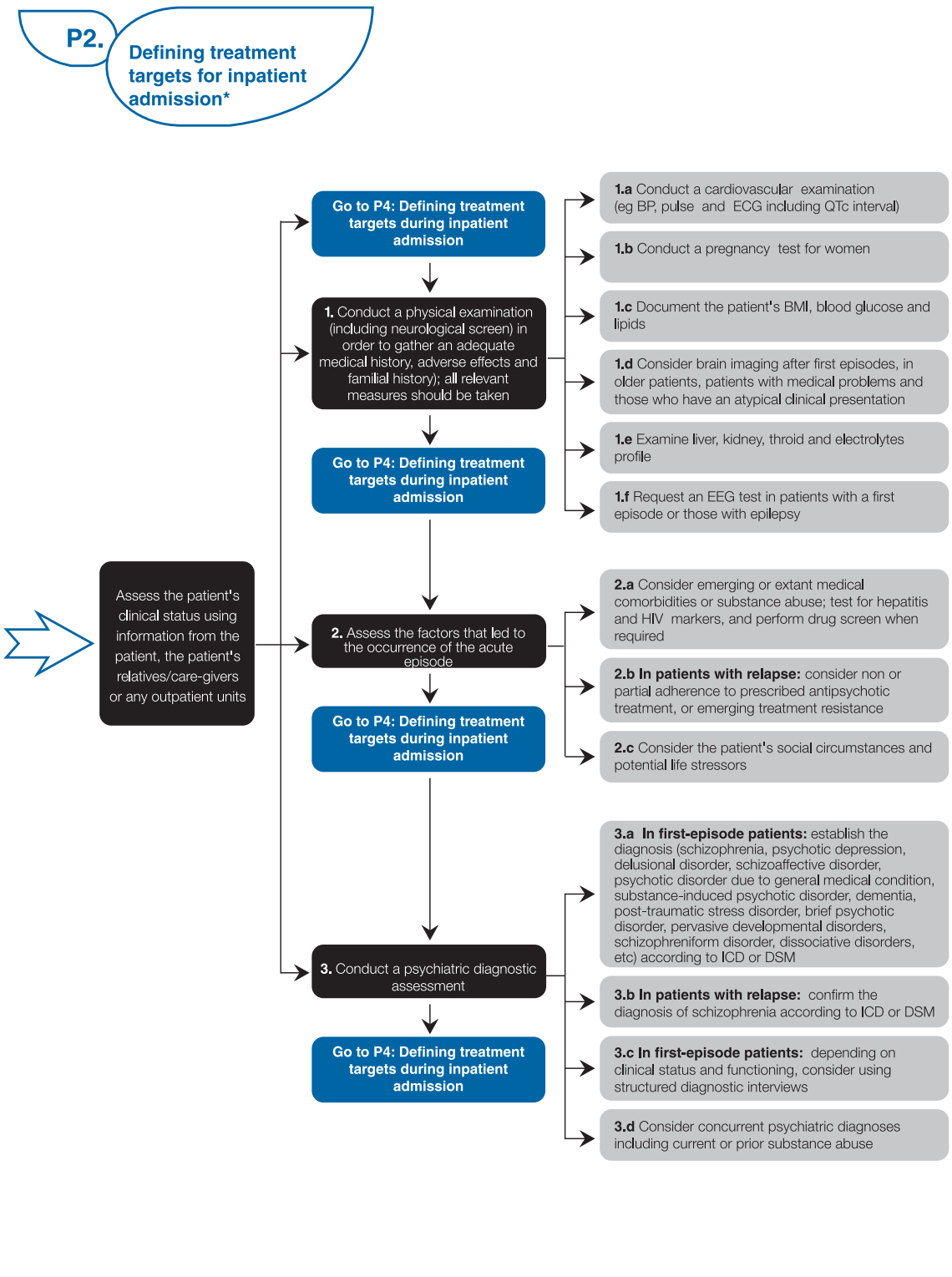
Algorithm 2. Defining treatment targets for inpatient treatment

As seen in Figure 2, first the patient's clinical condition should be assessed. To this end, the information obtained from the patient, their family or caregivers, or from an outpatient clinic will be used. In the next step, a detailed medical history should be obtained and a physical examination including a neurological examination should be carried out. In the third step the factors leading to the acute episode should be assessed and finally a psychiatric diagnosis should be made.



*Proposed pathway structure drafted on the basis of recommendations provided by Hospital Setting Expert Committee members
**Level of assessment dependent on whether patient is known to clinic.
Decision points are represented in light blue, action points are represented in black, and considerations are represented in grey.
Black arrows indicate routes to and from the pathway. Transition points to other sections of the pathway are indicated in blue.

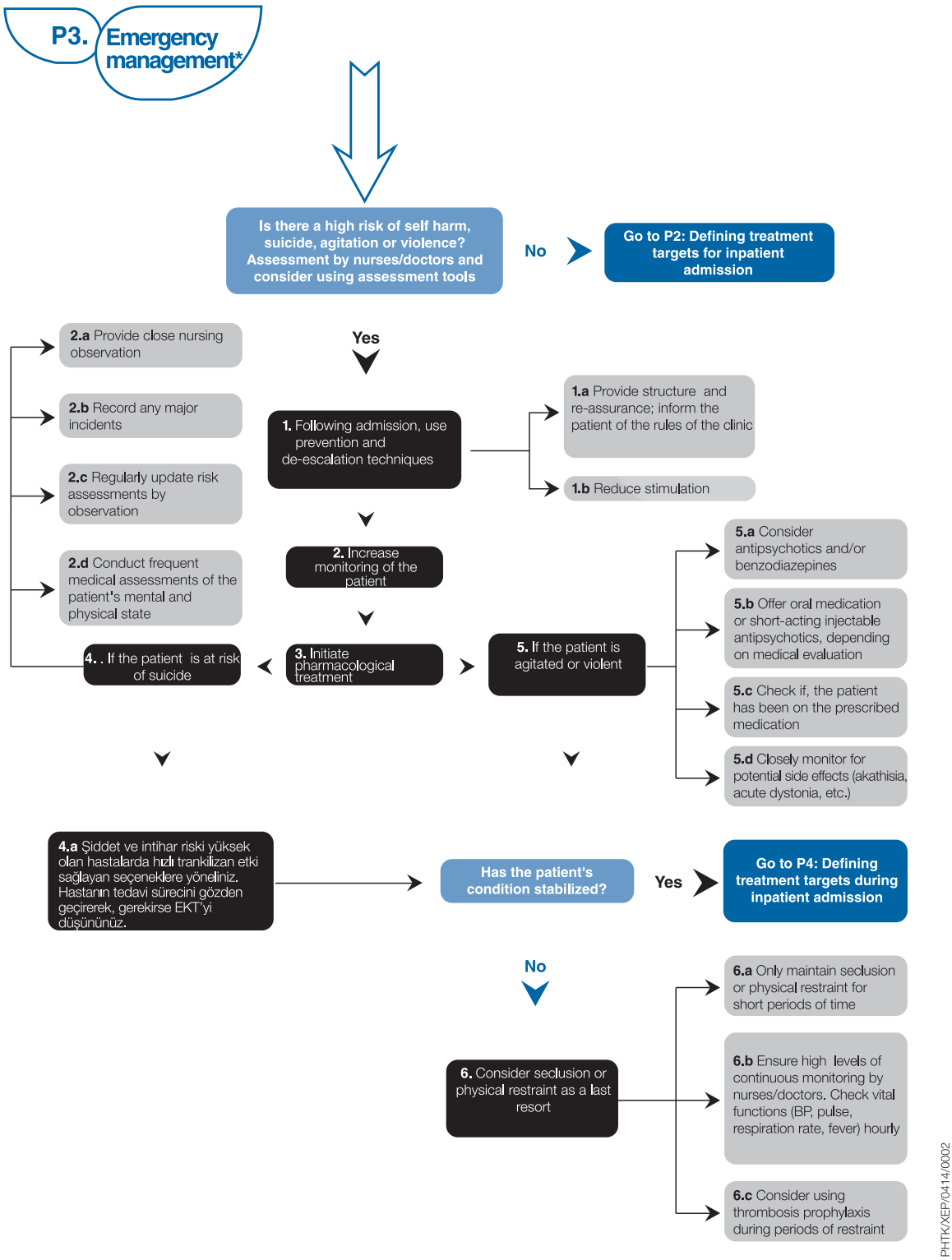
Figure 1: Assessing the acute psychotic episode.



*Proposed pathway structure drafted on the basis of recommendations provided by Hospital Setting Expert Committee members
BMI: body mass index; DSM: Diagnostic and Statistical Manual of Mental Disorders; ECG: electrocardiography; EEG: electroencephalography; ICD: International Classification of Diseases; QTc: measure of the time between the start of the Q wave and the end of the T wave in the heart's electrical cycle.

Decision points are represented in light blue, action points are represented in black, and considerations are represented in grey.
Blue arrows indicate routes to and from the pathway.
Transition points to other sections of the pathway are indicated in blue

Figure 2: Defining treatment targets for inpatient treatment.



*Proposed pathway structure drafted on the basis of recommendations provided by Hospital Setting Expert Committee members.
Decision points are represented in light blue, action points are represented in black, and considerations are represented in grey.
Blue arrows indicate routes to and from the pathway.
Transition points to other sections of the pathway are indicated in blue.

Figure 3: Emergency management.

Algorithm 3. Emergency management

In the emergency management, it is recommended that the patient go through a nurse/ doctor assessment to explore the question "Is there a high risk of self-harm, suicide, agitation or aggression?" and the assessment instruments be used. If the answer to this question is "no", then it is appropriate to go on to Algorithm 4- Defining treatment targets during inpatient treatment. However, if the answer is "yes", prevention and appeasement techniques should be used after the patient is settled in the hospital. The details of the algorithm on emergency management are summarized in Figure 3.

Algorithm 4. Defining treatment targets during inpatient treatment

As seen in Figure 4, in the process following the hospitalization of the patient, first, treatment should be initiated and the factors that may cause a psychotic condition should be assessed simultaneously in order to identify the treatment targets. The next steps include the following in that order: Administering antipsychotics, obtaining information from the Public Mental Health Center, using the involuntary hospitalization protocol if the hospitalization is involuntary, assessing accompanying physical diseases, assessing use of substances, making a detailed psychiatric assessment, assessing psychosocial conditions and needs and planning the services to be provided after discharge from the hospital.

Algorithm 5. Pharmacological treatment at the time of hospitalization

The first step in this algorithm is to start antipsychotic treatment for both the patients with initial episode and those in relapse duringin the hospitalization. A few days of drug-free observation may be used for the patients ininitial episode if it is necessary and the patient's condition is appropriate. Noncompliance with or resistance to the drug treatment should be assessed as an accelerating factor for relapse patients. It is recommended that antipsychotic treatment is started for both groups of patients using a single antipsychotic (monotherapy). The necessary assessment should be carried out to add drugs later (Figure 5).

Algorithm 6. Non-pharmacological treatment during inpatient treatment

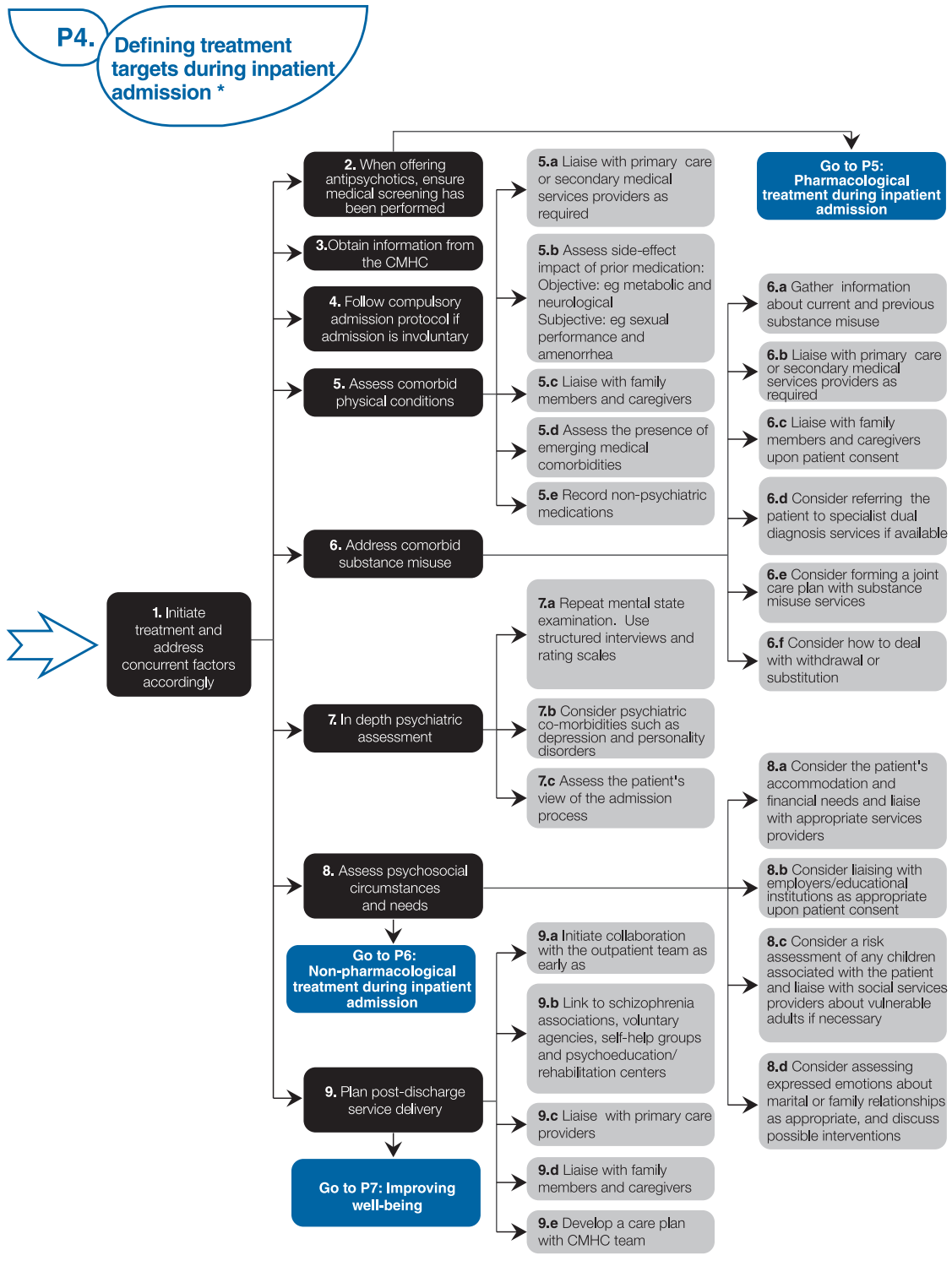
The first step in non-pharmaceutical treatment for hospitalized patients is to start psychosocial interventions. In addition to this, social support should be provided to the patients and their families and healthy living programs should be started for the patients (Figure 6).

Algorithm 7. Improvement of well-being

To improve well-being, first, a long-term treatment plan in an inpatient treatment setting should be developed and cooperation should be established with the teams of the outpatient clinic and the Public Mental Health Center. Moreover, a plan should be developed for care after leaving the hospital. A three-step plan is recommended for improvement of well-being: psychosocial education, sessions focusing on insight, and interviews focusing on making common decisions. Additionally, the patient will be given an explanation about the importance of drug treatment after leaving the hospital. Furthermore, continuity should be assured in the services provided to the patient and plans should be made for resolving crises and improving functioning (Figure 7).

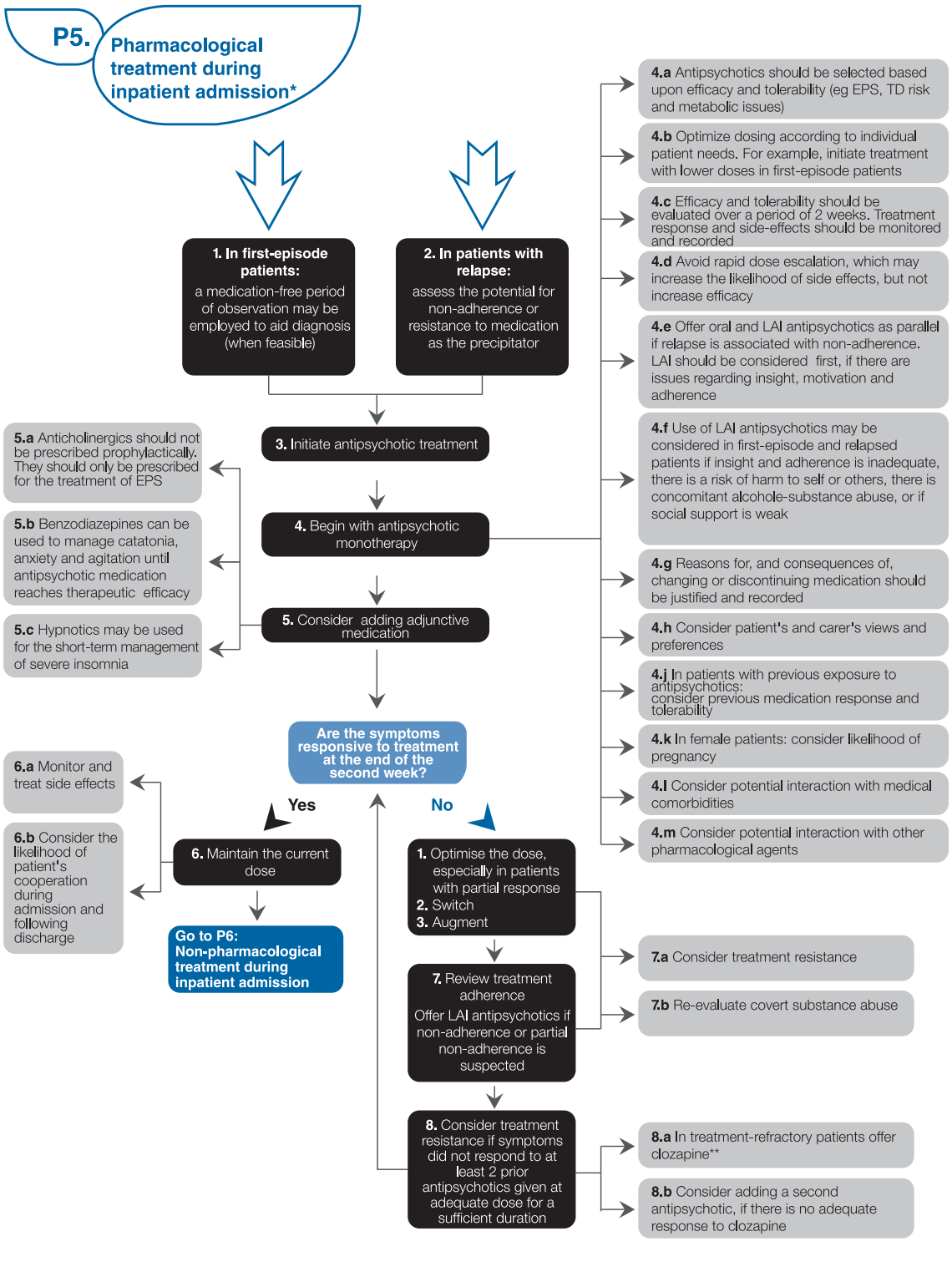
Finalization of the treatment guideline for patients with schizophrenia and psychotic disorder who are hospitalized in a psychiatry clinic

Two types of testing were carried out during the field work to assess the usefulness of the guideline in clinical procedures. The doctors



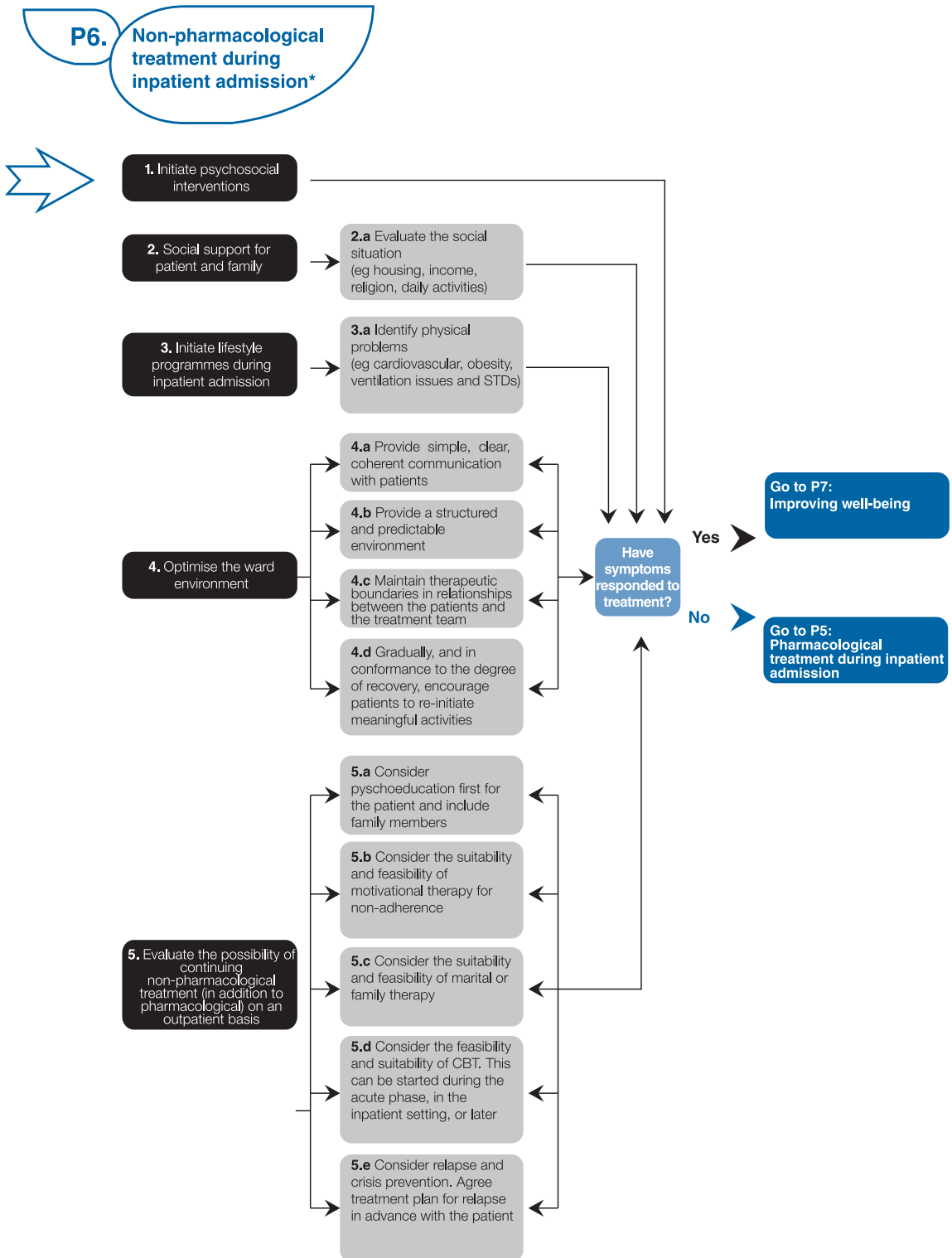
*Proposed pathway structure drafted on the basis of recommendations provided by Hospital Setting Expert Committee members.
Decision points are represented in light blue, action points are represented in black, and considerations are represented in grey.
Blue arrows indicate routes to and from the pathway.
Transition points to other sections of the pathway are indicated in blue.

Figure 4: Defining treatment targets during inpatient treatment.



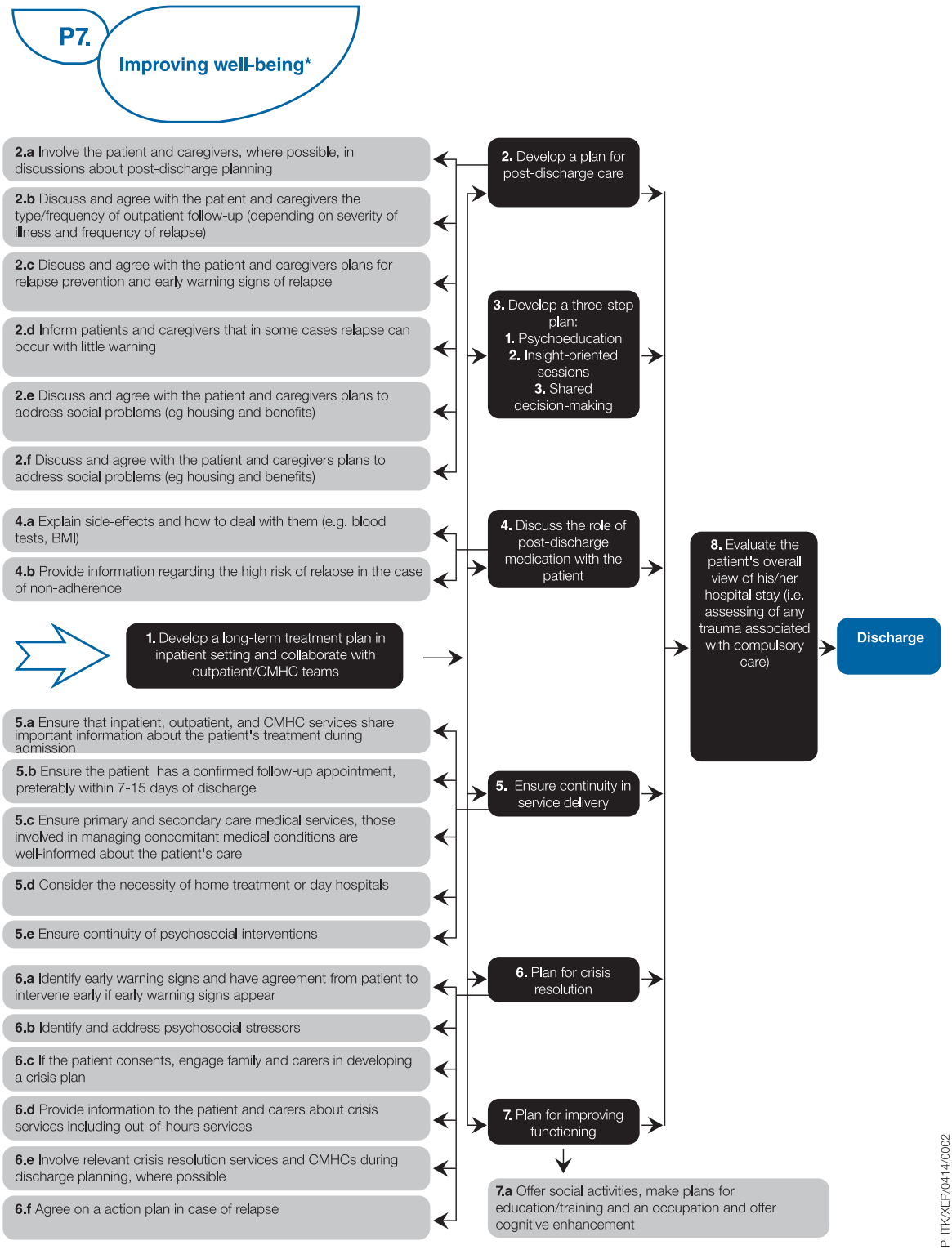
*Proposed pathway structure drafted on the basis of recommendations provided by Hospital Setting Expert Committee members
**Before initiating clozapine, patients should have a blood test and a history and physical examination (including an ECG)
ECG: electrocardiography; EPS: extrapyramidal symptoms; LAI: long-acting injectable; TD: tardive dyskinesia
Decision points are represented in light blue, action points are represented in black, and considerations are represented in grey.
Blue arrows indicate routes to and from the pathway.
Transition points to other sections of the pathway are indicated in blue.

Figure 5: Pharmacological treatment at the time of hospitalization.



*Proposed pathway structure drafted on the basis of recommendations provided by Hospital Setting Expert Committee members
Decision points are represented in light blue, action points are represented in black, and considerations are represented in grey.
Blue arrows indicate routes to and from the pathway.
Transition points to other sections of the pathway are indicated in blue.

Figure 6: Non-pharmacological treatment during inpatient treatment.



*Proposed pathway structure drafted on the basis of recommendations provided by Hospital Setting Expert Committee members
Decision points are represented in orange, action points are represented in green, and considerations are represented in yellow.
Yellow arrows indicate routes to and from the pathway.
Transition points to other sections of the pathway are indicated in red.

Figure 7: Improvement of well-being.

administering the guideline tested the usefulness of the guideline for various clinical settings. Each doctor also collectively reviewed all the clinical settings, where the guideline was administered to make a holistic assessment for the guideline.

It was concluded during the procedures in different psychiatry clinics that the first five algorithms could be used for most of the patients; the sixth and seventh algorithms could be used in relatively fewer situations.

The doctors scored between 0 and 10 to rate how beneficial the use of these algorithms was by comparing them to their own routine approaches. "Not seeing any benefit" from the administration of the algorithm received the lowest score "0" and "seeing significant benefit" received the highest score "10". While the first five algorithms were scored between 7.5 and 7.7, the sixth and seventh algorithms received lower scores (6.7 and 6.9). Nevertheless, the mean scores of the sixth and seventh algorithms were also at an acceptable level.

The extent to which doctors preferred administration of this guideline to their existing routine approaches in the clinics where they work and the extent to which they would recommend this treatment guideline to their colleagues were also scored between 0 and 10. Both preferring administration of the guideline and recommending it to their colleagues were scored at 7.5±0.7.

DISCUSSION

The data obtained from the field work carried out at eight centers to assess the suitability for use in daily practice of the Turkish version of the guideline called "the treatment guideline for patients with schizophrenia and psychotic disorder who are hospitalized in a psychiatry clinic", which was revised to meet the conditions in our country, showed that doctors would benefit from the use of these algorithms. Moreover, the extent to which doctors prefer the administration of this guideline instead of their existing routine approaches in the clinics they work and the extent to which they recommend this treatment guideline to their colleagues were also scored quite high. All these findings are promising for the administration of this guideline, which was prepared to help doctors in managing hospitalized schizophrenia patients.

Among mental diseases, schizophrenia rates highest in terms of economic burden[16]. It is estimated to account for 2.5% of annual health expenditures in the United States of America[17]. The cost of schizophrenia is calculated to be 32.5 billion USD for Americans[18]. Considering patients, their families, other caregivers and society as a whole, the indirect cost associated with this disease becomes very important[19]. In a study carried out in the United Kingdom, the indirect cost calculated as the loss of patient productivity has been reported to be at least four times the direct cost[20].

When doctors approach hospitalized schizophrenia patients using the algorithms reported here, it will be beneficial in both treating patients in a correct way and ensuring continuation of their well-being after they leave the hospital. This approach will speed up the participation of patients in social life and in this way will help reduce the burden of the disease on the country's economy. Being among the developing countries, this is particularly important for our country. Therefore, testing this guideline, which was initially tested with the pilot study mentioned in this article, with studies involving broader patient populations, may produce valuable data for both patients and society.

Acknowledgement

The meetings held to develop the Turkish version of "Treatment guidelines for patients with schizophrenia or psychotic disorder who are hospitalized in a psychiatry clinic" have been sponsored by the Janssen Turkey. In performing this study and writing the article, professional support was obtained from "Yorum Danışmanlık" with contributions by Janssen Turkey.

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Annex-1. The list of physicians comprising the Hospital Setting Expert Committee (HSEC)

Andrea Fagiolini *(Italy; Chairman)*; Sophia Frangou *(UK; Deputy Chairman)*; Mohan George *(UK; Deputy Chairman)*; Köksal Alptekin *(Turkey)*; Philippe Courtet *(France)*; Peter Dries *(Holland)*; Marc de Hert *(Belgium)*; Joel Hultman *(Sweden)*; Thomas Messer *(Germany)*; Guiseppe Imperado *(Italy)*; Christina Leotsakou *(Greece)*; Carmen Moreno *(Spain)*; Raymund Schwan *(France)*; Manuel Alfonso Simon *(Spain)*; Hans-Jörg Assion *(Germany)*; Wolfgang Fleischacker *(Germany)*; Harsha Gopisetty *(UK)*; Marina Diaz Marsa *(Spain)*.