Clinical Management Process for Depressive Disorders in Departments of Psychiatry

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INTRODUCTION

Process management is a tool for organizing care in a way that focuses on a specific condition throughout all of its phases in a uniform, orderly and protocolized way. A care process is a set of decisions, actions and activities designed to enhance the implementation of care, degree of patient satisfaction and involvement of practitioners. The Clinical Management Process for Depression (CMP-D) and Anxiety developed at the *Instituto de Psiquiatría y Salud Mental* (Institute of Psychiatry and Mental Health), Hospital Clínico San Carlos, Madrid is an approach to anxiety and depression disorders based on an integral vision shared by different care levels (primary care and specialized psychiatry and mental health care). The CMP-D has its own information system, which allows clinical outcome analysis to be carried out, and an evaluation system (indicators) that is used to analyze the process itself and any possible deviations.

The CMP-D used in psychiatry departments includes a subprocess for psychiatric outpatient clinics in Mental Health Centers (MHC) and a subprocess for the Psychiatric Hospitalization Unit. Both subprocesses standardize identification, diagnosis and therapeutic interventions in patients with depressive disorders included in the CMP-D.

According to the International Classification of Diseases (ICD-10),[1] the depressive disorders covered by the CMP-D are: depressive episodes (F32), recurrent depressive disorder (F33), persistent mood (affective) disorders,(F34) other mood disorders (F38) and mood disorders not otherwise specified (F39). Bipolar depressive disorders pertaining to a different specific clinical management process have been excluded.

The aim of using the CMP-D for mental health services, which is consistent with the most recent clinical guidelines for the treatment of depression, is to achieve and maintain remission of the acute depressive episode. In clinical terms, this entails the virtual elimination of all signs and symptoms of depression and, in practical terms, a return to previous levels of social and general functional capacity.[2] A patient's failure to achieve remission has negative consequences. Patients with incomplete remission have 2 or 3 times higher risk for relapse than those who achieve complete remission,[3, 4] more chronic depressive episodes,[5] a shorter interval between episodes,[5] and more functional impairment.[6] In addition, the absence of remission appears to be associated with more medical comorbidity and a higher number of suicide attempts.[7, 8]

Despite the serious consequences attending partial remission of major depressive disorder (MDD), complete remission is still rare. Among patients starting antidepressant treatment for major depression, about half fail to respond to initial treatment and only one third of these patients achieve remission.[9] Thirty percent of patients fail to achieve remission after several series of therapeutic attempts.[10]

The evolution of MDD during treatment is classified as response, remission, recovery, relapse and recurrence.[11] In the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR),[12] complete remission of depression is defined as the absence of signs or symptoms of illness during the last 2 months, and partial remission is defined as the presence of symptoms that do not satisfy the full criteria for an episode of major depressive disorder or the existence of significant symptoms for a period of less than 2 months. Achievement of remission is the goal of acute treatment, and maintenance of remission (recovery) is the ultimate goal of treatment. Relapse is the return of the depressive episode during remission and recurrence is the appearance of a new episode during the recovery phase.

In order to achieve MDD remission, a series of evaluations and treatment steps during the acute phase may be required. The treatment of depression consists of an acute phase, a continuation phase and a maintenance phase. The acute phase has been described traditionally as lasting 6 to 12 weeks. Patients who achieve remission pass to a continuation phase of 4 to 9 months, followed by a prolonged maintenance phase for patients with chronic or recurrent MDD.[13]

DEPRESSION PROCESS IN OUTPATIENT CLINICS

In accordance with the CMP-D developed at the Institute of Psychiatry, Hospital Clínico San Carlos of Madrid, patients with depression undergo outpatient psychiatric care in Mental Health Centers (MHC). Patients referred to MHCs come from different healthcare settings. Most patients are referred by primary care (PC) teams in accordance with a series of referral criteria previously established by consensus for the CMP-D with PC specialists. Other routes of access are hospital emergency services and, less frequently, other medical specialties.

The first step of the CMP-D in the evaluation of patients in MHCs is to identify the most appropriate treatment for each individual case and establish a set of criteria for referral to the psychiatric hospitalization unit, including: 1) serious risk of suicide at the time of assessment (e.g., recent suicide attempt, uncontrollable suicidal ideation), 2) severe behavioral disorders that represent a significant risk to the patient and/or others, 3) psychotic symptoms not manageable in the outpatient clinic, and 4) lack of response to drug treatment and indication for specific treatments in a hospital setting.

In addition to obtaining a complete medical history, the Process involves making a specific assessment of all depressed patients seen in the outpatient clinic. This assessment includes, among other studies, a systematized psychopathological examination (examination of mental status) and the management of a series of required and optional clinical scales.

Measurement-based care is a system that involves using standardized scales to detect and diagnose disease, regularly assess symptoms, monitor patients, and assist in therapeutic decision-making.[14, 15] This type of care, complementary to the clinical examination, provides sensitive measures of the patient's clinical status and, with the use of treatment algorithms, helps to improve the detection of depression, rationalize and optimize therapeutic decisions, and improve disease outcome. It has been suggested that regular and systematic use of clinical scales to measure response to treatment helps to improve the outcome of patients with MDD and facilitates remission.[16] In clinical practice, implementation of this measurement system and the establishment of critical decision-making points provide the means for deciding when treatment has failed, what to do with patients who only attain partial improvement, how long effective treatment should be maintained and when it should be stopped. Not applying a measurement-based system may predispose to unnecessary changes of treatment and therapeutic combinations in patients who might have responded and achieved remission with initial treatment.[9]

At present, several scales are available for each level of assessment, including the detection, diagnosis and identification of depressive symptoms and treatment monitoring. Self-administered versions are available for some of these scales, which can make these instruments quick and easy to use in clinical practice.

The CMP-D in psychiatry departments includes the routine use of certain measurement instruments, whereas other desirable instruments are reserved for optional use by clinicians. Routinely used instruments include the PHQ-9 *(Patient Health Questionnaire),*[17] CGI *(Clinical Global Impression),*[18] GAF *(Global Assessment of Function),*[19] and an instrument for measuring health-related quality of life, EUROQOL-5D.[20] The PHQ-9 scale is a self-administered instrument for the detection, diagnosis and monitoring of depressive symptoms that is especially useful in clinical practice. It consists of 9 items based on the "A" criteria for major depressive disorder of the DSM-IV.

The optional-use scales include the assessment of depressive symptoms using the Hamilton Depression Rating Scale,[21] MDQ *(Mood Disorder Questionnaire)*[22] for screening patients with possible bipolar disorder, and the Plutchik Suicide Risk Scale.[23, 24]

Another specific aspect included in the initial assessment of depressive patients is a multidimensional assessment of the possible etiopathogenic factors related to the patient's depressive episode. These factors, classified in accordance with three types, biological, psychological and social, are grouped into precipitating factors, predisposing factors, perpetuating factors and protective factors. The first three factors were systematized after taking into consideration the list of factors that influence health status and contact with health services (Code Z) of the ICD-10.

The specific evaluation of depression in psychiatry departments is completed with complementary tests and examinations (laboratory tests, imaging, ECG, EEG) and, if necessary, with requests for assessment of the patient by other specialists. Likewise, the CMP-D provides a written document for optional use by the patient and the patient's family with information about the disease characteristics and prognosis, its therapeutic possibilities and expected results.

Two different intervention algorithms are used after establishing the diagnosis of depressive disorder, one for single depressive episodes (Fig. 1) and the other for recurrent depressive episodes (Fig. 2). Both include an initial assessment of the severity of the current episode (mild, moderate or severe) and use a clinical staging model of depression (see below) from which are derived differentiated intervention strategies, treatment plans and follow-up for every phase of

evolution of the disease. Both algorithms address the following points:

1. Determination of the setting for care and treatment of depressive disorders
   The setting for treatment (Psychiatry Departments or Primary Care Outpatient Clinics) is determined by the interaction between the following variables: severity of the episode, treatment phase of the patient (acute, continuation or maintenance) and satisfaction or not of the criteria for complete remission. In all cases where remission is not achieved, or only a response with persistent residual symptoms is attained, patients continue follow-up and treatment in specialized psychiatry departments.

2. Diagnosis of depression based on a clinical staging model
   The CMP-D incorporates a novel feature consisting of diagnosis based on a clinical staging model. This model, widely used in medicine, especially oncology, is a refined form of diagnosis that differs from conventional diagnosis in that it includes not only a cross-sectional clinical definition (severity) of the disease at a particular time, but also introduces a longitudinal dimension that determines where a patient is on a continuum representing the evolution of the disease.[25-29] Application of the staging model in the field of psychiatry and, specifically, in the case of depressive disorders, provides a broad biopsychosocial definition that can help to determine the degree of disease progression, the persistence or recurrence of symptoms, and the degree of functional impairment involved. Together with the potential benefits that might derive from being able to correlate traditional diagnostic categories with specific pathophysiological entities, the definition of quantifiable stages in depression from a clinical perspective provides a useful framework for evaluating the effectiveness of specific evidence-based interventions and treatments for each stage aimed at the prevention of disease progression to more advanced stages, or the regression to early stages, including complete, sustained remission.[26-28, 30]
   The heuristic model proposed by McGorry's group[2] raises the question of the utility of the clinical staging model in depressive disorders, not only in facilitating the early detection of subjects at risk and the prevention of a first episode in subjects with subsyndromal symptoms, but in helping to prevent the development of the disease with specific treatments during the first episodes, thus reducing the severity of the disease and preventing progression to more advanced stages.[31]
   The change proposed by the HCSC Institute of Psychiatry and Mental Health in the clinical staging model for depressive disorders proposed by McGorry's group is summarized in Table 1.[31]
   A different staging model defines the stages in terms of the treatments needed to achieve remission of the depressive episode.[32-34] Although this model is more for measuring resistance to treatment, it complements the earlier clinical staging model, so the CMP-D has included this staging model in the assessment of resistant cases of depression, especially in the hospital setting.

3. Strategies for the treatment of depression and approach to resistant depression
   Along with the use of standardized measurement instruments, the CMP-D recommends the use of treatment algorithms and clinical guidelines for the treatment of depression during the acute phase and the maintenance and continuation treatment phases.[35-42] The guidelines approved for the CMP-D coincide with some basic principles of the treatment of depression based on scientific evidence. In acute treatment, the recommendations are complete diagnostic evaluation, assessment of the risk of personal and third-party injury, detection of possible life stressors, determination of general health status, selection of the appropriate treatment setting and establishment of an individualized treatment plan, including suitable dosages and treatment durations to achieve remission. During the continuation treatment, it is recommended that treatment be continued for 6-9 months at the same dose needed to achieve remission, and that a cycle of regular visits be established to monitor adherence and signs of relapse. In the maintenance treatment, clinical guidelines recommend the prolongation of treatment for more than one year in most cases. When the medication is withdrawn, it should be tapered off gradually and regular controls should be established to monitor therapeutic adherence and signs of recurrence.[43] Broad consensus exists that the use of clinical guidelines can contribute to improving therapeutic response, reducing medication changes and, ultimately, rationalizing treatment.[44] The therapeutic recommendations can be integrated with information on the individual patient's clinical status at certain critical decision-making points in the acute phase of treatment, allowing the design of individual treatment programs.[45]
   Most guidelines categorize therapeutic decisions by the severity of the patient's depression. The severity of depression is defined using the criteria of the ICD-10 or DSM-IV-TR. The treatment guidelines of the APA *(American Psychiatric Association),*[35] NICE, *(National Institute for Health and Clinical Excellence),*[38] and CANMAT *(Canadian Network for Mood and Anxiety Treatments)*[37] base measurements of severity on the DSM-IV. The guidelines of the BAP *(British Association for Psychopharmacology)*[36] and WFSBP *(World Federation of Societies of Biological Psychiatry)*[40-42]

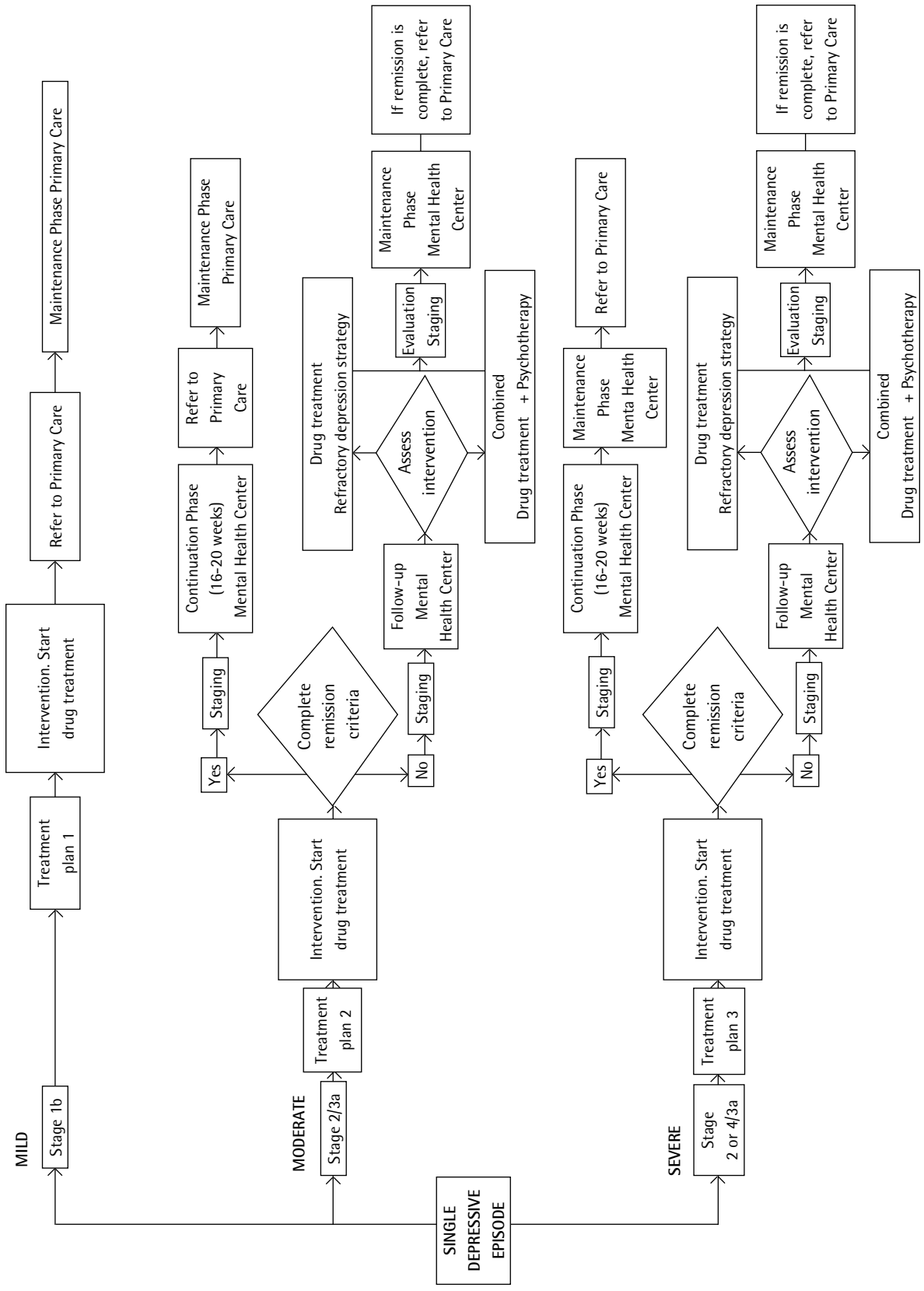

Figure 1 *Treatment algorithm for a single episode of depression in outpatient clinics*

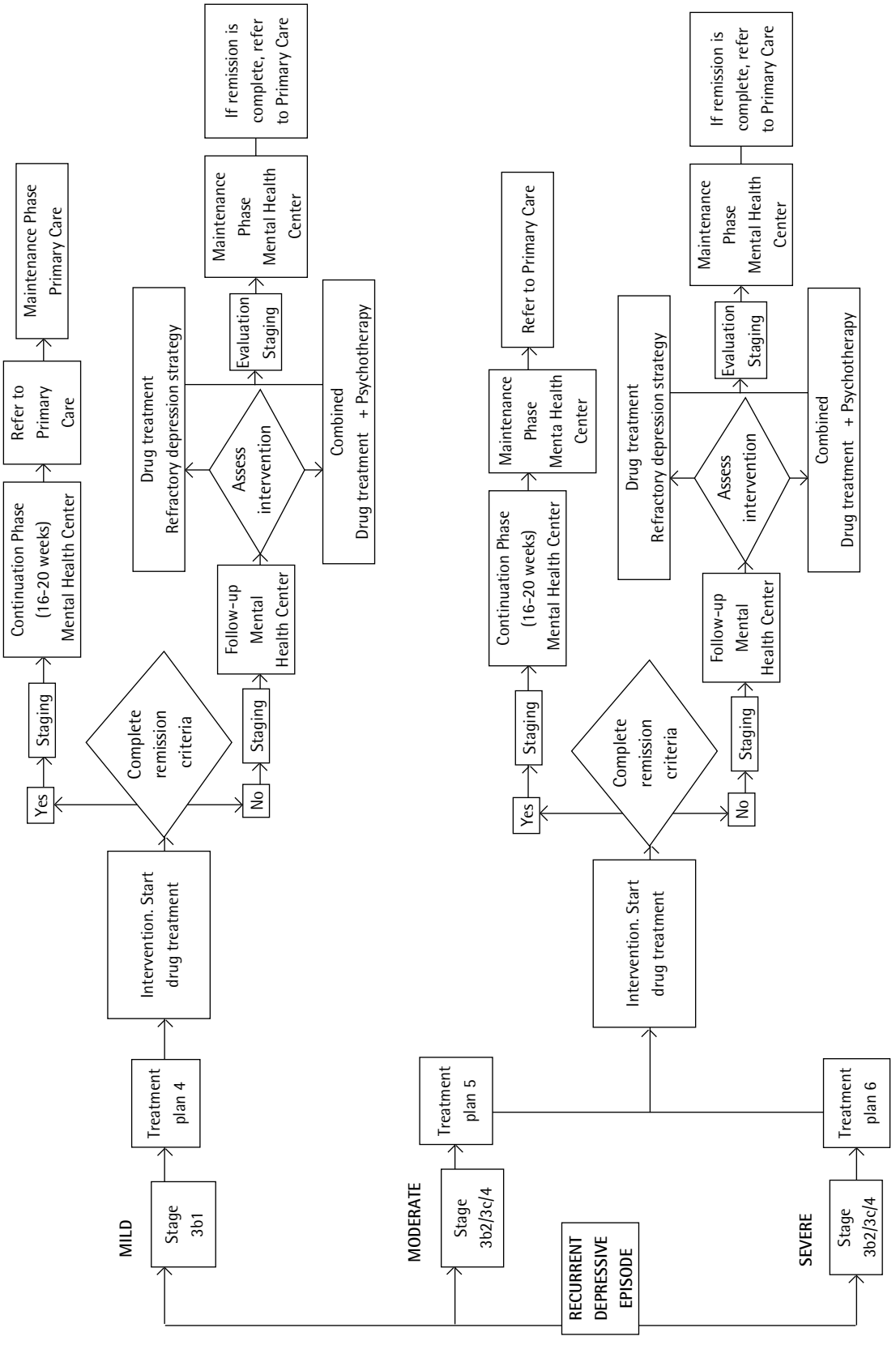

Figure 2 | *Treatment algorithm for recurrent depression in outpatient clinics*

Table 1 **Clinical staging model of depressive disorders, modified by the El Instituto de Psiquiatría y Salud Mental (IPySM) of HCSC[31]**

Clinical Stage	ICD-10 Diagnosis	Definition	Target Population	Potential Interventions	Biological and Endophenotypic Markers
0a		Major risk of depressive disorder or anxiety due to family history; no current symptoms.	Young, first-degree family members of probands.	Information on mental health, psychological education for the young person and family, resilience-enhancing strategies.	Candidate trait markers; short arm of 5HTT and endophenotypes.
0b		Major risk of depressive disorder with history of depressive episodes but no symptoms at present.	Persons with a previous depressive episode and complete remission.	Psychological education, resilience-enhancing strategies.	
1a		Mild or non-specific symptoms of depression, including neurocognitive deficits or mood changes. Mild alteration or diminished functional capacity.	Screening of populations of young people. Persons referred by Primary care or school guidance counselors.	Specific information on mental health; psychological education; lifestyle interventions; simple CBT techniques.	Trait and state candidates where feasible according to the simple size (e.g., diminished REM latency).
1b	Mild depressive episode.	Very high risk. Moderate, subthreshold symptoms of anxiety of depression with moderate neurocognitive changes and diminished functional capacity. GAF < 70.	Persons referred from Primary care, school guidance counselors, medical emergencies, social services.	Individual and family psychological education; lifestyle interventions; CBT techniques, including problem solving.	
2	Moderate-to-severe depressive episode.	First episode of major depressive disorder. Complete syndrome with moderate of severe symptoms, neurocognitive deficits and reduction of functional capacity (GAF 30-50).	Referred from Primary care, emergency room, other specialists, and alcohol and other drug dependence clinics.	Drug treatment, formal psychotherapy, psychological education, lifestyle interventions.	Biological markers of state, trait or disease progression.
3a	Mild, moderate or severe depressive episode.	Incomplete remission of the first episode of depression with treatment could be linked with or lead rapidly to stage 4.	Referred from Primary care or other specialized departments.	Equal to stage 2, but with special emphasis on drug and psychotherapy strategies to achieve complete remission.	Biological markers of state, trait or disease progression.
3b1	Recurrent depression. Present episode.	Recurrence or relapse of a previous depressive episode that stabilized with complete remission.	Referred from Primary care or other specialized departments.	Same as stage 3a but with emphasis on the prevention of relapses and strategies for detecting early warning symptoms.	Biological markers of state, trait or disease progression.
3b2	Recurrent depression. Present episode.	Recurrence or relapse of a previous depressive episode that stabilized with treatment at a lower than baseline functional level considered in relation to GAF, residual symptoms, or neurocognitive alterations.	Referred from Primary care or other specialized departments.	Same as stage 3a but with emphasis on the prevention of relapses and strategies for detecting early warning symptoms.	Biological markers of state, trait or disease progression.
3c	Recurrent depression. Moderate or severe current episode.	Multiple relapses in which worsening of the clinical extension and disease impact is observed.	Referred from Primary care or other specialized departments.	Same as 3b but with emphasis on long-term stabilization.	
4	Recurrent depression. Current episode severe or severe depressive episode.	Severe or persistent disease or disease that does not reach remission according to symptoms, neurocognitive situation and disability criteria. A first episode could pass to this stage from stage 2 according to specific clinical and functional criteria (e.g., psychotic symptoms) or, alternatively, due to failure in response to treatment from stage 3a.	Referred from Primary care or other specialized departments.	Same as 3c but with special emphasis on drug treatment and other biological treatments.	

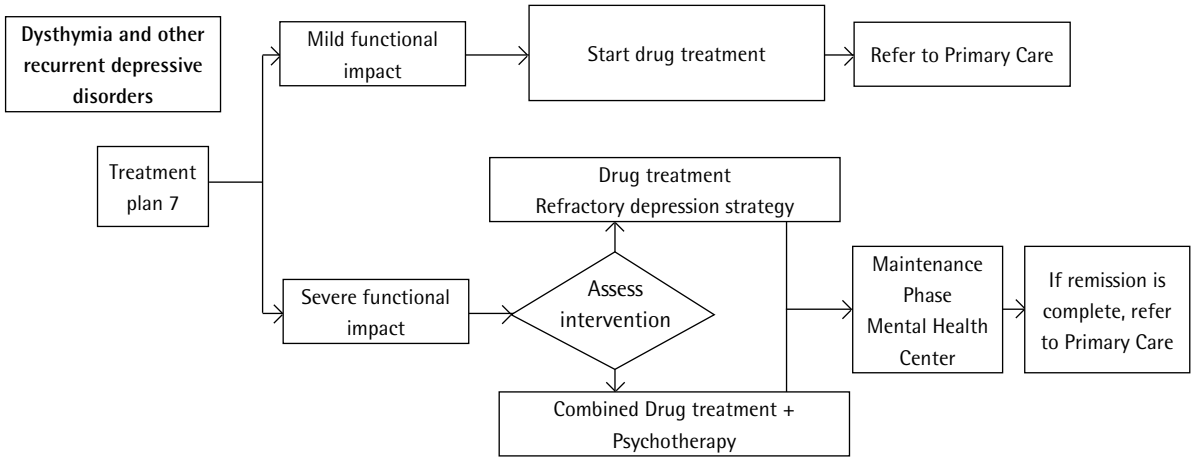

Figure 3 | *Treatment algorithm for dysthymia (neurotic depression) in outpatient clinics*

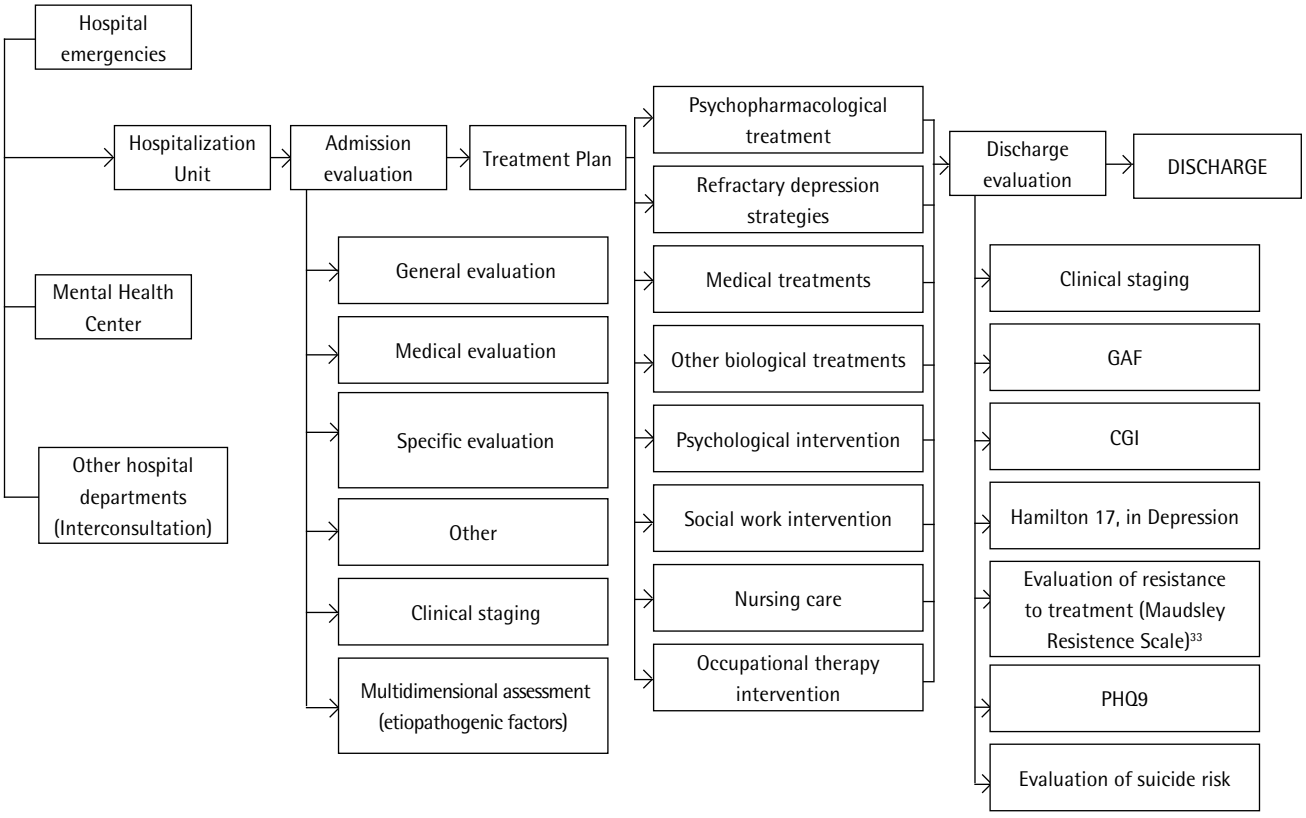

Figure 4 | *Evaluation and treatment of depressive disorders in the Psychiatric Hospitalization Unit*

base measurements of severity on ICD-10 and DSM-IV criteria. The TMAP *(Texas Medication Algorithm Project)*[39] does not distinguish degrees of severity, but recommends that severity be measured and also provides an independent algorithm for the treatment of psychotic depression.

The guidelines basically agree about the first-line treatment for moderate-to-severe depression, although there is more variability regarding the treatment of cases of mild MDD. Not all guidelines assess subsyndromal depression or dysthymia, but the guidelines that do offer similar recommendations about them.[43]

4. Determination of situations susceptible to combination therapy: pharmacological and psychotherapeutic treatment

   The CMP-D indicates combination therapy in cases in which psychological vulnerability susceptible to modification by psychotherapy is present and psychological factors influence the maintenance of symptoms, resistance to treatment, lack of therapeutic adherence, and functional disability or impairment. Dysfunctional personality traits, situations of severe stress, an altered pattern of interpersonal relations and situations of major psychosocial adversity are considered psychological factors. All cases referred to clinical psychology for evaluation and psychotherapy are referred with a specific interconsultation form that is returned to the ordering psychiatrist with the report after the intervention.

   The portfolio of psychotherapy services for the treatment of depressive disorders includes time-limited support psychotherapy, brief psychotherapy, individual cognitive behavioral therapy, group cognitive behavioral therapy, brief psychodynamic group therapy and other group techniques for clarification and support. These are all techniques that have proven effective according to evidence-based medicine criteria, in addition to being feasible and having trained professionals available.

   In patients with a diagnosis of single depressive episode, the CMP-D has a specific "Early Depressive Episodes" protocol that shares many common aspects with the general CMP-D. It differs from the general CMP-D in the systematization of the frequency of visits in the course of disease evolution, the widespread use of measurement instruments and more general monitoring.

   With respect to recurrent depression, the monitoring and treatment algorithm in MHCs is similar to single episodes, differing primarily in the longer time that patients who have had episodes of moderate-to-severe intensity are treated in mental health departments after achieving complete remission.

   In the case of dysthymia and other recurrent depressive disorders, treatment plans and the selection of the treatment setting are determined primarily by severity, which is defined in terms of functional impairment (Fig. 3).

THE CMP-D IN THE PSYCHIATRIC HOSPITALIZATION UNIT

The subprocess of the care of patients with depression in the psychiatric hospitalization setting shares many points with the subprocess of depression in outpatient clinics, although hospital care is aimed primarily at the resolution and stabilization of major depressive episodes that require treatment in a hospital setting. The hospital unit subprocess includes conducting a standard general psychiatric evaluation, complete medical evaluation and a specific evaluation that, like outpatient care, attaches special importance to the care model based on the use of measurement instruments (PHQ-9, CGI, HDRS, GAF, Plutchik Suicide Risk, Maudsley Staging Method for resistant depression)[34] and diagnosis derived from clinical staging model discussed above.

Since most hospitalized patients with depression are referred from outpatient clinics, CMP-D provides for establishing coordination mechanisms between the two care levels to facilitate the transmission of information between professionals during the patient's hospital stay and at discharge.

The treatment plan for depressive disorders in the hospital unit is shown in Figure 4.

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