The NIMH Life Chart ManualTM for Recurrent Affective Illness:

The LCMTM - S/R Retrospective

(Self-Version)

written by

Gabriele S. Leverich, M.S.W.

and

Robert M. Post, M.D.

with assistance from Melissa K. Spearing, B.A.

NIMH

Biological Psychiatry Branch

Building 10, Room 3S 239 Bethesda, Maryland 20892-1272 REVISED FEBRUARY 2002

Charting of the Past Course of Illness

Retrospective Life-Charting/Self Rated

(The NIMH LCMTM - S/R)

In the past you have probably been asked many questions about your illness by doctors and/or therapists who have worked with you, and by family members or friends who were concerned about your well-being. It can be difficult, however, to remember things "on the spot" and important facts could be left out that would be useful for your doctor or therapist to be aware of when trying to decide on the next step in your treatment. You already know that you benefit from being an informed and knowledgeable participant in your treatment process. We think that the life chart can be a very effective and valuable tool in helping you organize and visually present many important aspects of the past course of your illness.

By constructing your own life chart you are creating a **portable psychiatric history of your illness in the form of an easily understandable graph or picture** that you and your physician can review together, change where necessary, consult when important decisions about your treatment are being made, and continue to use as a way of monitoring your current course of illness and treatment response through daily **prospective life-charting** which is described in a separate manual (**LCM-S/P**).

How to Construct your Retrospective Life Chart

The NIMH Life Chart Method (The **LCM**[™]) is easy to follow and provides a clear picture of the mood swings that are so typical of this illness. The life chart will provide you with a good overview of the number of past episodes, their duration, frequency, and response to treatment. Important facts about your course of illness can emerge when reviewing your life chart such as changes in cycle pattern, loss of responsiveness to some medications or relapses when medications are discontinued. All this can have a significant impact on the choice of current and future treatments and can result in better management of your illness.

Constructing your life chart is not a test of any kind but a way of making sure that everything essential and important about you and your illness is documented clearly and permanently and collected in one place, namely the life chart.

Constructing your own life chart might initially appear to be a somewhat complex project. Once started, however, you will find that it is actually not so difficult and that it gets increasingly easier as you continue to work on it. Ask your family and friends to assist with your life chart by helping you remember times you were depressed or hypomanic or manic, in recalling important events in your life that may have been associated with an episode, and medications you have taken. Many other sources of information, such as diaries, calendars, medical records, physician notes, pharmacy print-outs etc. will further facilitate the life-charting process and help produce a life chart that is as accurate and representative of your prior course of illness as possible.

ASSESSING EPISODE SEVERITY

Functional impairment resulting from depressive or manic mood symptoms has been employed as an effective and more uniform measure of episode severity and episode severity has been categorized at three levels retrospectively:

HYPOMANIA AND MANIA:

At the <u>mild level of hypomania</u> you may experience very mild symptoms such as **decreased need for sleep**, increased energy, some irritability or euphoria (elated, very happy mood), or an increase in the rate of thought, speech or sociability. At the mild level these symptoms have **no negative impact** and might even **initially enhance your ability to function** although if your hypomania is more irritable, angry, anxious (dysphoric), you may feel somewhat uncomfortable and more impatient than usual.

At the <u>moderate level of mania</u> you have some of the above symptoms to a somewhat greater degree with some added symptoms, you may begin to be less productive and more unfocused, and you get **feedback** from family, friends, or coworkers that your behavior is different from your usual self. As your mania accelerates you may experience very significant symptoms such as very decreased need for sleep (or you may not sleep at all), a much increased level of energy, you may feel all powerful or out of control, your thoughts and speech may be extremely rapid and you get **much feedback** that **your behavior is different or difficult.** Friends, family, or coworkers express great concern about your ability to look after yourself or others, and others may appear angry or frustrated with your behavior.

At the highest or <u>severe level</u> of the <u>manic mood state</u> there is an even greater increase in the above symptoms with <u>much insistence</u> by family and friends that <u>you need medical attention</u>, that your behavior is out of control, or they might take you to the <u>hospital</u> concerned that they and you cannot keep you safe any longer.

DYSPHORIC HYPOMANIA OR MANIA

Dysphoric hypomania and mania can occur as part of bipolar illness and is experienced, at times, by about 40% of patients with this illness. Increases in **energy**, activity, your rate of thinking and interactions, with anger and irritability **in the context of decreased need for sleep** are present during periods of a **depressive**, "unhappy", dysphoric hypomania or mania. On the high side of the mood scale (i.e. above 50 to 100), even if the **activation** feels **driven**, **unpleasant**, and is accompanied by **anxiety**, **irritability**, and **anger**, **you are not slowed down or fatigued**. (Anxiety, irritability, anger and decreased sleep can also occur with <u>agitated</u> <u>depression</u> with pacing and ruminations, however, there is usually a <u>sense of fatigue</u> and slowness in responding.)

On days that you may experience such a dysphoric, unhappy, irritable hypomania or mania, please **check** the **Dysphoric Mania Box** above the mania section of the life chart form (or, if you are using graph paper, cross-hatch the episode).

DEPRESSION

Mild depression is distinctly different from your normal (balanced) self and represents a low mood, subjective distress, some social isolation but with little or no impairment in functioning as a result of depressive mood symptoms.

Moderate Depression:

Significant impairment in functioning or usual activity at work, school, or with the family, (as a result of depressive mood symptoms); that is you have **notable difficulty** carrying out your usual occupational, educational, or social role because of your bipolar illness, you may miss days from work, school or other regular activities or responsibilities.

Severe Depression:

Incapacitation at home or hospitalization; you are **essentially unable to function** in any one of your usual occupational, educational, or social roles. Again, hospitalized episodes (manic or depressed) get blackened in for easier recognition.

In summary, the impairment in your ability to function that you experience as a result of being depressed or hypomanic or manic determines the severity rating of the episode when you graph the episode on your life chart. Do not rate functional impairment unrelated to depressed or manic episodes (i.e., being functionally impaired because you sprained your ankle or are in bed with the flu would not be counted as an episode and would not affect the severity rating of a manic or depressed episode).

(Prospectively, as you can see in The Prospective Manual, Self-Rated (LCM-Self/Prospective, LCM-S/P), we have divided the three retrospective levels of severity into four levels by separating the "moderate" level into low moderate and high moderate for finer differentiation of your mood. We felt that in the prospective daily ratings this could more easily be done since you do your ratings on a daily basis at the end of each day in comparison to remembering mood related functional impairment in retrospective assessment which is done by month where three levels of episode severity based on mood related functional impairment seemed more appropriately conservative.)

The next two pages provide you with a list of some key words that can be helpful in assessing hypo/manic and depressive episode severity based on functional impairment resulting from mood symptoms and their associated impact on your body's function, i.e. sleep, appetite, energy, sexual interest, memory, concentration, which are called "vegetative symptoms" of depression.

Sample Key Words for Levels of DEPRESSION and Associated Functional Impairment

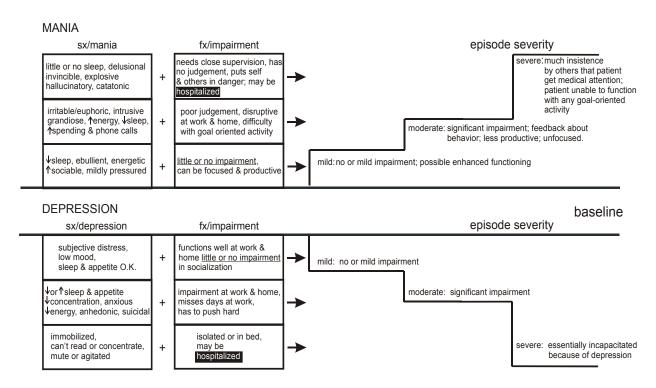
Types of Mood & Vegetative Symptoms	Severity Level	Functional Impairment
subjective distress mild sad mood not sharp, sluggish "a bit off" mild disinterest sleep and appetite o.k.	MILD	 minimal or no impairment continue to function well at work, school, and home
depressed mood hopeless lack of interest tearful anxious irritable decreased concentration decreased energy decreased self-esteem feelings of guilt, self-reproach unable to enjoy things suicidal ideation sleep disturbance appetite disturbance physically slowed down decreased sexual interest/activity agitated angry socially withdrawn isolates at home	MODERATE	 some extra effort needed to function occasionally missing days from work or school noticeable impairment at work, school, or home much extra effort needed to function very significant impairment at work, school, or home missing many days from work or school barely scraping by
immobilized lack of self care poor eating poor fluid intake unable to dress long speech delays, or mute very agitated, pacing very suicidal cannot think or remember false beliefs (delusions) sensory distortions (hallucinations	SEVERE	 not working not in school not functioning at home cannot carry out any routine activities incapacitated at home OR Hospitalized

Sample Key Words for Levels of MANIA and Associated Functional Impairment

Types of Mood & Vegetative Symptoms	Severity Level	Functional Impairment
increased energy increased activity more social enthusiastic, exuberant irritable talkative feel more productive	MILD	 minimal or no impairment continue to function well at work, school, and home functioning may even improve in some areas
euphoric irritable intrusive hypertalkative disruptive insistent overinvolved decreased need for sleep increased energy pressured flight of ideas very distractible increased spending speeding uncomfortably driven increased sexual interest/activity promiscuous grandiose may be reckless	MODERATE	 difficulty with goal-oriented activity feel productive but may not be (e.g., starting many projects without finishing) get in trouble with work, school, family others comment about behavior can't focus others angry/frustrated with you poor judgement great difficulty with goal oriented activities
need little or no sleep feel out of control explosive feel all powerful invincible angry potentially violent excessive energy extremely driven reckless see or hear things not there	SEVERE	 close supervision needed asked to leave work or school unable to function with any goal-oriented activity bizarre behavior or decisions family and friends insist that you get help in trouble with the law Hospitalized

RETROSPECTIVE LIFE CHARTING OF SEVERITY LEVELS: SYMPTOMS

AND DEFINITIONS

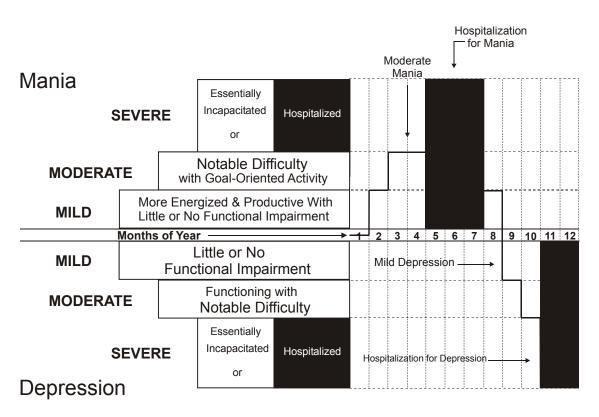


Please note: Functional impairment due to other medical illnesses such as the flu, a broken leg, arthritis, heart disease etc. are not factored into rating episode severity.

GRAPHING OF EPISODES AND HOSPITALIZATIONS

Let's start with the basic principles of retrospective life-charting: the time line in the middle of the chart (marking the months and years) is also called the **baseline** indicating a level or balanced mood state, i.e., **you** are not depressed or hypomanic or manic.

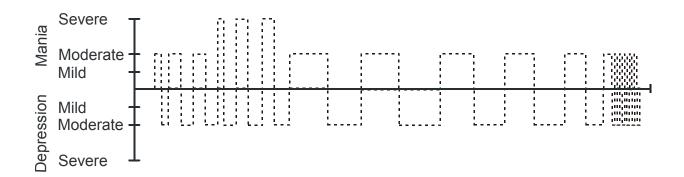
Episodes of **depression** are drawn **below** the **baseline** (which is also the date line) and episodes of **mania** are drawn **above** the **baseline** at **three severity levels** (mild, moderate, or **severe**) based on your level of your **functional impairment as a result of a depressed or hypo/manic mood** in your usual social, educational, or occupational roles. Any **hospitalization** for mania or depression is rated at the most severe level and **blackened in** on the graph. For ease of use we have precoded the three levels of episode severity at the left margin of the retrospective life chart form.



We have developed a life chart template to make charting of past episodes and medications as easy as possible for you. The time frame for each template covers five years on each page and provides for **episode severity coding** (based on functional impairment resulting from mood symptoms) in **the left margin of the form**. **Each space on the form represents one month** and the months of each year are numbered within the dateline/baseline (please see side view of the retrospective form above).

Use dotted lines to graph episodes when details of timing cannot be reconstructed (estimated episodes): you are certain that an episode took place but you are not very sure when the episode started or stopped; this is still important information and should be recorded on the life chart with dotted lines.

Example of Charting of Estimated Episodes



Coding for Frequent Cycling

If you were experiencing frequent cycling between a manic or depressive episode (or within a depressive or manic episode), please indicate the range of the mood changes or switches, (i.e. the severity of the switch into the manic and depressive range using life chart episode severity criteria) by drawing vertical lines to the highest severity of hypo/mania and depression you experienced.

If you have ultra-rapid cycling, i.e. one or more full episodes lasting a week or less, you should indicate this by frequent, spaced lines above and below the baseline (to the appropriate level of severity) and simply mark the (approximate) total number of episodes or mood switches per month in the box marked "number of mood switches per month" (rather than trying to exactly match the number of vertical lines above and below the baseline to the ultra-rapid episode occurrence).

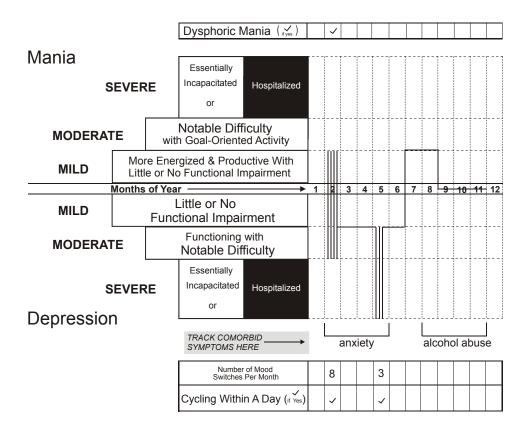
Ultra-ultra rapid cycling (or "ultradian" cycling) is defined by a clear shift between (or within) hypo/manic and depressive episodes within a day and is indicated by densely packed frequent lines above and below the baseline to the appropriate level of severity. If you recall such periods of ultra-ultra rapid cycling in the past, simply put a checkmark into the "cycling within a day" box for any month you remember having experienced such distinct, rapid mood cycling within a day.

If you experienced both patterns of cycling during a month, i.e. one or more full episodes lasting a week or less and periods of the cycling within the day, please continue to record the total (approximate) number of episodes or mood switches lasting a week or less in the "mood switches per month" box and also put a checkmark in the "cycling within a day" box.

Coding for unhappy or dysphoric mania: if you are experiencing the activation and increased energy of a mania with racing thoughts and decreased need for sleep but the prevailing mood is one of irritability,

anxiety, or anger, this type of depressive or **unhappy mania** is indicated by **cross-hatching the manic episode** and/or checking the **box** above the manic range marked **"dysphoric mania"**.

Recording of Comorbid Symptoms

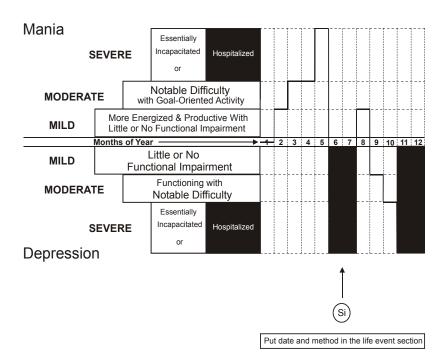


Coding for alcohol and substance use: draw a time-line parallel to the baseline and indicate the start and stop dates of the time period for the excessive alcohol intake or an illicit drug use with arrows pointing toward the baseline. Write the nature of the substance abuse underneath the line.

Coding for associated psychiatric symptoms: draw a time-line parallel to the baseline with start and stop dates for the time period of other psychiatric symptoms (such as panic attacks, anxiety, bulimia, etc).

Indicate the time period by arrows pointing toward the baseline/dateline of the life chart. Mark the nature of these additional symptoms by writing them underneath the timeline.

Coding for a suicide attempt: please enter the date of the attempt below the space allocated for depressive episodes and draw an arrow to the appropriate (or approximate) date on the baseline/dateline.



Medications

The most frequently used **mood stabilizer medications** lithium (Lithobid), carbamazepine (Tegretol®), and valproate (Depakote®) and other medication classes are precoded on the margin and write-in space is provided for the names of the **antidepressant medications** (such as, for example, bupropion (Wellbutrin®)

or sertraline (Zoloft®), for **typical neuroleptics** such as chlorpromazine (Thorazine®) or thioridazine (Mellaril®), for **atypical neuroleptics** such as olanzapine (Zyprexa®) or clozapine (Clozaril®) or for **minor tranquilizers** such as clonazepam (Klonopin®) or alprazolam (Xanax®) you may have taken. Enter any

other past medications for your affective disorder that you may have taken. It is fine to simply draw lines through each medication row for the medication that you have entered in the margin at the time point the medication was started. Be sure to indicate the dose at the start of a medication (if known) or any dose change that may have occurred over time.

(Please check the appendix to this manual for a <u>comprehensive list of medications</u> that may help trigger your memory.)

Life Events

Life Events can be entered in the allocated space below the depressive episodes with the date of the occurrence where available. The degree of positive or negative impact the particular event may have had on you should be indicated with a (+) number or (-) number in the impact column of the Life Events Section if you wish to rate the positive or negative impact of the event. Please consider how desirable the event was, how much you felt the event was under your control, how expected or anticipated the event was (or how unexpectedly it happened), how potentially disruptive the event could be long-term, and how much it could potentially affect or lower your self-esteem.

The rating scale goes from +4 (very positive impact) to -4 (very severe, negative impact) with 0 indicating neutral or no impact.

0 = no impact

-1 = mild (negative) impact +1 = mild (positive) impact

-2 = moderate (negative) impact +2= moderate (positive) impact

-3 = marked (negative) impact +3 = marked (positive) impact

-4 = severe (negative) impact +4 = very positive impact

We have developed a limited checklist of events that could happen. If possible, please check this list and try to remember whether any of these events happened to you and approximately when. If you have experienced any or several of them, or others not on the list, please mark them on your life chart with a date or approximate time and an impact rating.

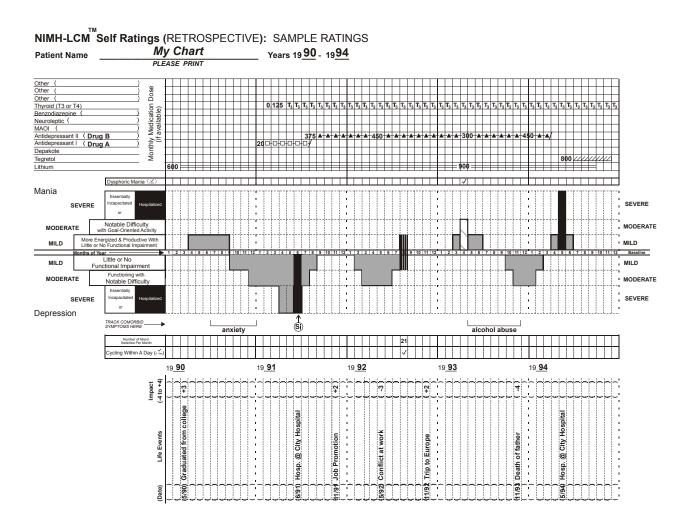
LIFE EVENT CHECKLIST

- 1. Death of spouse
- 2. Death of close family member (including child)
- 3. Major financial difficulties
- **4. Business failure** for self or important other
- **5. Loss of job** for self or important other
- 6. Divorce
- 7. Marital **separation** due to discord
- **8.** Serious **illness** of a child or close family member
- **9. Unemployment** for at least one month
- 10. Death of close friend
- 11. **Demotion** for self or important other
- **12.** Serious **personal illness** (hospitalized or at least one month off work)
- 13. Lawsuit
- 14. Increased arguments with spouse/life partner
- **15.** Increased **arguments** with resident **family** member (not spouse); family problems
- **16. Separation** from significant other (friend or relative)

- **17. Retirement** of self or important other
- 18. Change in residence, major move
- 19. Close friend very ill
- **20. Relationship problems** (not spouse)
- 21. Holiday
- 22. Vacation trip
- 23. Pet very sick or dies
- 24. Anniversaries of significant events
- 25. Marriage
- **26.** Car or transportation problems
- 27. Birth of a child
- **28.** Change in work conditions (for the worse); conflicts with boss or co-worker
- 29. Start new type of work
- 30. Engagement
- **31. Accident** (i.e., car accident, injuries etc., to self and significant other person(s)
- **32.** Job **promotion** for self or significant person (spouse, life partner, friend, or relative)

This page illustrates

An Example of a Five-Year Self-Rated Life Chart



At a glance you can see that the person in this life chart example had multiple manic and depressive episodes despite treatment with lithium and two different antidepressants (drug A and B on the life chart) and T4 (Synthroid). Note how the lithium dose was charted as increased to 900 mgs per day in 1993. One depression and one mania required hospitalization (as indicated by the blackening-in of the episode) and a manic episode, starting in February and ending in April 1993 is coded as dysphoric (indicated by a check in

the dysphoric mania box and/or the cross-hatching of the episode). In August of 1992 you can see the frequent mood changes experienced during this month between mild hypomania and moderate depression with a number in the "mood switches per month" box indicating the frequency of the mood changes during this month. A number of life events are recorded in the "life event" section below the depressive ratings with (+) and (-) numbers indicating the degree of positive and negative impact the events had on this patient by self-ratings.

This life chart process might initially look complicated but it gets much easier with a little time and practice. The end result of your time and investment is your own life chart, showing you at a glance your prior course of illness and past treatment responses. This will be an invaluable clinical tool when you and your physician make decisions about your future course of treatment or should you need to transition to a different clinician.

Working on your Life Chart

When you begin working on your life chart you can use the life chart graph that we have developed to facilitate the process or you can use simple graph paper if you prefer. If you work on graph paper please indicate **mild manic or depressive episode severity** with **2.5 squares or boxes**, **moderate** manic or depressive episode severity with **5 boxes**, and **10 boxes** above or below the date line to indicate **severe** mania or depression. All other life chart coding remains the same.

When you begin graphing your past episodes of mania and depression on the life chart it is generally easiest to start with the last year since this is probably the year you most clearly remember.

Graph last year's episodes at the appropriate severity level (i.e., at the level of functional impairment resulting from mood symptoms) following the instructions and examples given in this manual. Record the

medications with doses whenever possible, as well as important life events from the Life Event Checklist (page 16) you remember took place, or any additional events that may not be on the list.

Please be sure to draw the degree of episode severity on the appropriate line of episode severity as indicated in the margin rather than in the middle of the boxes. (For hypo/mania draw the line along the top of the box and for depression draw the line along the bottom of the box at the severity level you endorsed.)

When you are finished with recording episodes, medications, and events for the last year, try to go back to the beginning of your illness following the same method of graphing episodes, medications, and whenever possible, events. Try to record as much information as you can recall at this time and don't be worried if you can't remember exact dates, or all the names of the medications. If you remember that you were on an antidepressant medication but have forgotten the exact name, record it under the **class** of antidepressant medication (without a specific name). This is applicable to any other medication where you cannot recall the name; knowing the class of the medication with which you were treated will provide important information in itself with regard to past treatment responses and what might be the best next step in your treatment. (Again, the medication list in the back of the manual can assist you in remembering some medications you may have been on in the past).

Try to work forward in time from the onset of your illness but if you feel more comfortable working your way backward from the beginning, or want to continue with a time period you remember well, proceed in that fashion. Many people work backward and forward in time on the life chart in a way that is most productive and helpful for them and provides them with the most information about their course of illness.

The life chart graph can be a very basic or a more detailed picture of your course of illness depending on the information available and the amount of time you can spend on it as well as your current mood.

Working on your life chart is easier when you are feeling better and it is generally helpful to review your chart again when you are well. Your personal records and recollections, insurance statements and bills, hospital or physician records, pharmacy printouts, performance reviews from work, school or college grades,

disability statements, family and friends' recollections, all can assist you in recalling important times and

possible mood episodes in your life. The life-charting process is open-ended so that further information can

be added to the life chart at any time as more material is gathered or when you are able to spend more time

on it, but it will be most helpful to you and your doctor if as many episodes and medications as possible can

be graphed out in the beginning even if they are only guessed at in terms of timing (i.e., using dotted lines).

Summary

It is useful to review the life chart in its entirety when you are in a relatively balanced mood state and, if you

feel comfortable with it, family and/or friends can join the meeting. Display the life chart where everyone can

see it and go over it step by step. Confirm degree of incapacitation at home where appropriate, and how much

assistance family and/or friends needed to provide. This process can be a very important educational and

clinical experience for both you and your family and/or friends. It points to the reality and complexity of this

disorder and helps engage others in the understanding and management of this illness. Encourage family

members, friends, or others to help you add to your life chart. Future additions and revisions are always

possible and welcome and can only be of profit for you and your continuous treatment Whether you will use

the life chart for your own personal tracking of your illness to become an informed participant in the

management of your own illness and its response to treatment or whether you are participating in a study, we

wish you the very best.

NIMH / Biological Psychiatry Branch

(301) 496-7180

(301) 435-3625

20

Common Psychotropic Medications

Listed by Generic Name (Brand Name)

MOOD STABILIZERS

Anticonvulsants

Acetazolamide (Diamox)
Carbamazepine (Tegretol)
Felbamate (Felbatol)
Gabapentin (Neurontin)
Lamotrigine (Lamictal)
Levetiracetam (Keppra)
Phenytoin (Dilantin)
Topiramate (Topamax)
Tiagabine (Gabitril)

Valproic Acid (Depakote, Valproate)

Zonisamide (Zonegran)

Calcium Channel Blockers

Amlodipine (Norvasc) Diltiazem (Cardizem)

Isradipine (DynaCirc, Prescal) Nifedipine (Adalat, Procardia)

Nimodipine (Nimotop) Verapamil (Calan, Isoptin)

Other

Lithium Carbonate (Eskalith, Lithobid) Lithium Citrate (Cibalith-S)

ANTIDEPRESSANTS

SSRIs

Citalopram (Celexa)
Fluoxetine (Prozac)
Fluvoxamine (Luvox)
Paroxetine (Paxil)
Sertraline (Zoloft)

SNRIs

Venlafaxine (Effexor) Nefazodone (Serzone) Trazodone (Desyrel)

Dopamine Related

Bupropion (Wellbutrin) Pramipexole (Mirapex)

Cyclic Compounds

Amitriptyline (Amitid, Elavil) Amoxapine (Asendin) Clomipramine (Anafranil) Desipramine (Norpramin, Pertofrane)
Doxepin (Adapin, Sinequan)
Imipramine (Tofranil, Janimine)

Maprotiline (Ludiomil) Mirtazapine (Remeron)

Nortriptyline (Aventyl, Pamelor)

Protriptyline (Vivactil) Trimipramine (Surmontil)

MAOIs

Isocarboxazid (Marplan)

Moclobemide (Not avail. In US)

Phenelzine (Nardil) Selegiline (Eldepryl) Tranylcypromine (Parnate)

NEUROLEPTICS

Chlorpromazine (Thorazine)

Chlorprothixene (Taractan)

Fluphenazine (Prolixin, Permitil)

Haloperidol (Haldol)

Loxapine (Loxitane, Daloxin)

Molindone (Moban) Perphenazine (Trilafon) Pimozide (Orap)

Prochlorperazine (Compazine)

Thioridazine (Mellaril) Thiothixene (Navane) Trifluoperazine (Stelazine)

Atypical Neuroleptics

Clozapine (Clozaril)
Olanzapine (Zyprexa)
Risperidone (Risperdal)
Ziprasidone (Geodon)

ANXIOLYTICS

Alprazolam (Xanax) Chlorazepate (Tranxene) Chlordiazepoxide (Librium) Clonazepam (Klonopin) Diazepam (Valium) Flurazepam (Dalmane) Lorazepam (Ativan) Oxazepam (Serax) Temazepam (Restoril) Butalbital (Fiortal) Mephobarbital (Mebaral) (Seconal) Secobarbital Buspirone (Buspar)

STIMULANTS

d-Amphetamine (Dexedrine)

Methylphenidate (Ritalin, Concerta)

Pemoline (Cylert) Modafinil (Provigil)

Adderall amphetamine product

THYROID HORMONE

T-3 Liothyronine (Cytomel)

T-4 Levothyroxine (Synthroid)

SUPPLEMENTS

Ginkgo Biloba

Hypericum (St. John's Wort)

Melatonin

Piper Methysticum (Kava Kava)

S-adenosylmethionine (Sam-E)

ETHYL EPA (Laxdale)

EPA & DHA (Omega Brite)

ALCOHOL/SUBTANCE ABUSE

Acamprosate (Campral)

Disulfiram (Antabuse)

Naltrexone (ReVia)

Buprenorphine (Temgesic, Buprenex)

Methadone (Dolophine, Methadose)

WEIGHT TREATMENTS

Megestrol Acetate (Megace)

Fenfluramine (Pondium)

Phentermine (Obermine, Phentrol)

Sibutramine (Meridia)

ANTIPARKINSONIAN

Atropine Sulfate (Atropine)

Benztropine (Cogentin)

Trihexyphenidyl (Artane)

Amantadine (Symmetrel)

Carbidopa (Sinemet)

Procyclidine (Kemadrin)