The NIMH Life Chart ManualTM for Recurrent Affective Illness:

The LCMTM

LCM-C/P

(Prospective Life Chart Ratings/Clinician)

written by

Gabriele S. Leverich, M.S.W.

and

Robert M. Post, M.D.

with assistance from

Melissa K. Spearing, B.A.

Biological Psychiatry Branch

NIMH

Building 10, Room 3S 239 Bethesda, Maryland 20892-1272 Updated February 2002

Introduction

Prospective life charting follows the guidelines and principles of retrospective life charting and provides for the continuity of systematic assessment of the longitudinal course of affective illness, its long-term response to treatment, and the estimation of the role of psychosocial stressors.

Prospective life charting is employed in treatment and research studies with clinic visits at regular intervals, in naturalistic studies with less frequent appointments, and in longitudinal post-discharge studies where follow-up is highly intermittent.

When the patient is actively involved in a study or seen in clinical practice, frequency of visits is determined by patient need and study parameters, usually varying from weekly to monthly. Tracking mood on a daily basis assists in obtaining the most accurate record of mood fluctuations, associated functional impairment and treatment response and becomes particularly important if clinic visits are spaced at longer intervals. Thus, daily patient self-ratings of mood and ability to function (the NIMH-LCM-S/P) assume a crucial role. The clinician uses the patient self-assessment as a memory probe when meeting with the patient and integrates this information into his own evaluation when filling out the NIMH Clinician version of the Prospective ratings (the NIMH-LCM-C/P). In this fashion a very detailed picture of mood dysregulation and functional incapacitation emerges, and the investigation of the occurrence of any life events is facilitated by this process. The prospective lifecharting forms for the patient and the clinician (LCM-S/P and LCM-C/P), developed at NIMH, assure uniformity and continuity of assessment of the longitudinal course of affective illness and help patient and clinician make better informed decisions about treatment and management of this at times difficult illness.

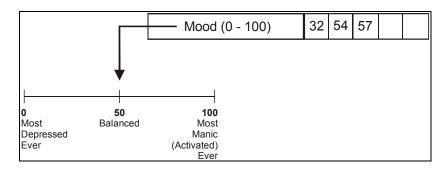
The Prospective Life-Charting Forms

The **prospective rating forms** (both the clinician and the patient self-rated form) use **daily ratings** at 4 levels of severity of mood symptoms + functional impairment, thus allowing for more detail in the tracking of the current course of illness and its response to treatment. (In contrast, the **retrospective life chart** assesses **episode severity at three levels** based on functional impairment arising from mood dysregulation and generally uses a month as a time frame for the rating unless more detailed information is available).

Both the prospective patient and clinician forms preserve the format of the retrospective life chart form **but prospectively** we have **separated** the **moderate range of episode severity into low moderate** and **high moderate** based on functioning with **some effort or great effort** as a result of mood symptoms. In this fashion smaller degrees of improvement or worsening for the current assessment period can be plotted by the patient and clinician.

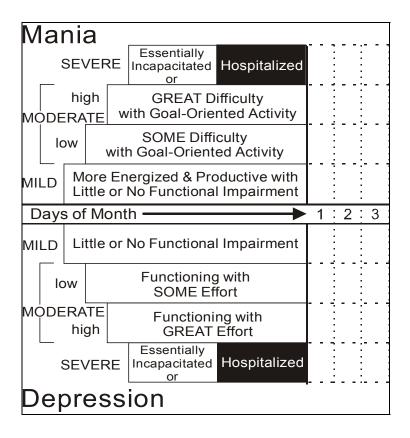
Mood Analogue Scale (on patient prospective form only)

The patient self-rating form adds a (0-100) mood analogue scale to allow for fine discrimination of daily mood changes rated by the patient (between 0 = the most depressed the patient could imagine being, 50 = balanced or level mood and 100 = most activated/energetic/manic the patient could ever be). The patient is then asked to chart depressed or manic episode severity at the four possible levels of episode severity (mild, low moderate, high moderate or severe) based on functional impairment driven by mood dysregulation.



ASSESSING EPISODE SEVERITY

Functional impairment resulting from manic or depressive mood symptoms has been employed as an effective and more consistent way of **measuring episode severity**. Episode severity has been categorized at **four levels prospectively** and for ease of use we have precoded the levels of episode severity at the left margin of the form:



The <u>Following Guidelines</u> have been established for rating the

<u>Four Levels of Episode Severity</u> for the <u>Daily Prospective</u> <u>Life Chart Rating</u> and have

been communicated to the patient in the Patient Manual as follows:

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.**

At the <u>low 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 **some feedback** from family, friends, or coworkers that your behavior is different from your usual self.

At the <u>high moderate level of mania</u> 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 <u>highest /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 **you need medical attention**, that your behavior is out of control, or they might take you to the **hospital** concerned that they and you cannot keep you safe any longer.

DYSPHORIC HYPO/MANIA

<u>Dysphoric</u> 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 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.

DEPRESSION:

<u>Mild depression</u> represents a subjective sense of distress, a low mood, some social isolation, but you continue to function with **little or no functional impairment**.

<u>Low moderate depression</u> indicates that **functioning** in your usual roles is more difficult due to depressive mood symptoms and **requires extra time or effort** (you have to push yourself to get things done).

<u>High moderate depression</u> indicates that **functioning** is very difficult and **requires great extra time or great extra effort** with very marked difficulty in your usual routines (one could barely scrape by).

<u>Severe depression</u> means that you are **unable to function** in any one of your usual social and occupational roles, i.e., you are unable to get out of bed, go to school or work, carry out any of your routine functions, require much extra care at home, or need to be hospitalized.

The Guidelines for the Prospective assessment of Episode Severity

(on front of the rating form)

indicate that:

Depression

<u>Mild depression</u> represents **low mood but no impairment** in the patient's usual (normal) level **of functioning**;

<u>Low moderate depression</u> means that **some extra effort** was needed **to function** in the patient's usual social and occupational roles and interactions at home, work, or school;

<u>High moderate depression</u> denotes that the patient is functioning only **with great effort** and has marked difficulty in the usual roles and routines in his/her life;

<u>Severe depression</u> indicates essential incapacitation, that the patient is **largely unable to function** in any of the usual social and occupational roles, and needs care taking at home or hospitalization.

Hypo/Mania

When giving guidelines to the patients as to how to rate their hypo/manic mood states we implemented a slightly different approach. Since patients historically have difficulty rating their own hypo/manias we are asking patients to incorporate an observer's (such as a friend's or family member's) feedback regarding their own behaviors at the moderate and severe levels of mania.

<u>Mild hypomania</u> is described as feeling very mild symptoms such as decreased need for sleep,

irritability or euphoria, more energized and productive with little or no functional impairment and

possible enhancement of functioning.

Low moderate mania represents some difficulty with goal-oriented activity (resulting from

symptoms such as much increase in energy, distractibility, hyper-talkativeness, racing thoughts etc.)

and the patient might get some feedback that the behavior is different or odd.

High moderate mania indicates great difficulty with goal-oriented activity (driven by manic

mood symptoms), the patient gets much feedback that his/her behavior is difficult, outlandish or

bizarre, others appear angry or frustrated with the patient's behavior, and there is increased concern

about the patient's ability to look after him/herself or others.

Severe mania represents essential incapacitation and inability to function in any goal-oriented

activity and the patient gets feedback that family and friends want him/her in the hospital.

Dysphoric hypo/mania

Dysphoric hypo/mania is described to the patient as an "unhappy" mania with increased energy,

decreased need for sleep, racing thoughts etc. with an irritable, anxious, sad, angry, depressed

or unpleasantly driven mood. When a dysphoric hypomania or mania occurs, an additional check-

mark is entered in the designated box (above the mania ratings) to differentiate it from the more

euphoric and expansive form of hypo/mania.

Please note: The CLINICIAN FORM ONLY has a PSYCHOSIS CHECK BOX (if indicated)

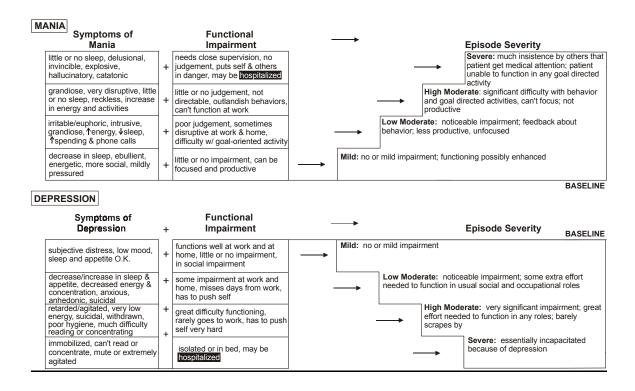
for each day (above the dysphoric mania box).

Clinician Prospective Manual (LCM-C/P) updated 2-14-2002 Final

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Summary Schema

PROSPECTIVE LIFE CHARTING OF SEVERITY LEVELS: SYMPTOMS AND DEFINITIONS



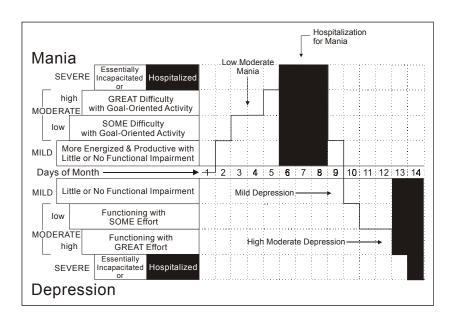
Please note: Functional impairment due to other medical illnesses such as the flu, a broken leg, arthritis, heart disease etc., are not factored into rating episode severity.

GRAPHING OF EPISODES:

The time line in the middle of the chart, (which also marks the *Days of the Month*), is called the **Baseline**, which indicates a **level** or balanced **mood** state, i.e. **you are <u>not</u> depressed or hypomanic or manic.**

Episodes of **depression** are drawn **below** the **baseline** and episodes of **hypomania or mania** are drawn **above** the **baseline** at **four severity levels** (mild, low moderate, high moderate, or severe).

Severity is based on the patient's level of functional impairment due to depressive or manic mood symptoms in her/his usual social, educational, and occupational roles. Any hospitalization for mania or depression is rated at the most severe level and **blackened** in:



The next two pages provide a list of some key words that can be helpful in assessing the four prospective levels of depressive and hypo/manic severity based on functional impairment.

Sample Key Words for Levels of DEPRESSION and Associated Functional Impairment

Types of Mood and 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 no interest in pleasurable things suicidal ideation sleep disturbance appetite disturbance physically slowed down decreased sexual interest/activity agitated angry socially withdrawn isolates at home	LOW MODERATE HIGH 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 hospitalized

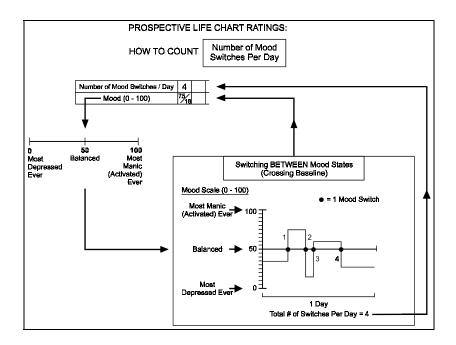
Sample Key Words for Levels of MANIA and Associated Functional Impairment

Types of Mood and Vegetative Symptoms Severity Level

and 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	LOW MODERATE HIGH 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 judgment 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

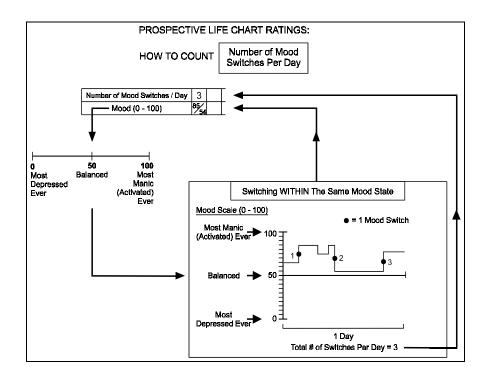
Ultra-ultra Rapid Cycling

Sudden, distinct, and large mood changes within a single day are rated by the patient as a split mood rating indicating the lowest mood for the day (for example 16), and the most activated/manic mood for the day (for example 75) and the split rating is entered in the "mood" box (below the depression ratings) as 75/16. Each time the mood crosses from one mood state to another (i.e. from depression to mania or from mania to depression) within one day, it is counted as one mood switch. The **number of times** that the **mood switches polarity** is entered in the "mood switches/day" box.



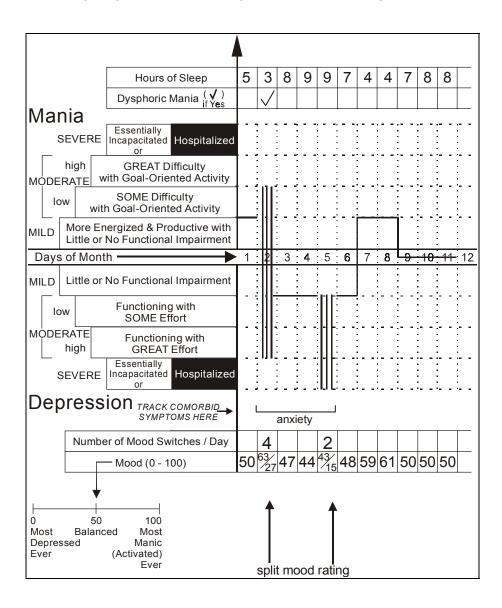
Please note: Only the Patient Form also allows for entering the split mood ratings (e.g. 75/16) of the ultra-ultra rapid mood switches in addition to the number of switches/day. The clinician form only records the number of switches per day should this mood pattern occur.

Sudden, sharp and dramatic mood switches within a single day within one mood phase (such as from mild hypomania to severe mania to very mild hypomania and back to mania) also can be counted as 3 mood switches. The greatest amplitude of a sudden switch within that mood phase is recorded as a split mood rating (such as, for example, 85/54) in the "Mood" box and is also entered in the "mood switches/day" box (i.e., 3). (Please note that typical diurnal variation often seen in the depressive phase, i.e. worse in the morning and a very gradual mood improvement during the day, should not be counted as a mood switch. The same holds true for a reverse diurnal variation, i.e. better in the morning with a gradual worsening toward the latter half of the day).



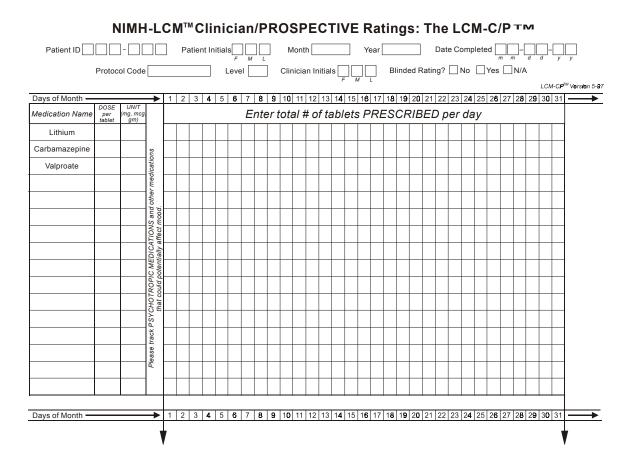
RECORDING FUNCTIONAL IMPAIRMENT DUE TO ULTRADIAN MOOD SWITCHES:

After counting and entering the number of mood switches per day the patient then rates how much his/her worst hypo/manic and depressive symptoms of this day have affected his/her ability to function. The patient is then asked to indicate the greatest functional impact of these manic and depressive switches by drawing up and down lines to the most severe impairment level for mania and depression reached, following the guidelines on the margin of the life chart rating form.



Medications

Medication dose(s) are entered in the allocated spaces with some of the mood stabilizers, such a lithium, tegretol, or depakote pre-coded in the margin since many patients will be on a mood stabilizer. Write-in spaces are provided for other medications (including options for randomized medications should the patient be participating in randomized medication trials). The patient is encouraged to enter daily medication doses at the end of each day together with the mood and functional impairment ratings to encourage his/her own tracking of medications and to enhance compliance.



Sleep

The patient form ONLY has a daily box for "hours of sleep" for night-time sleep rounded to the full hour. (Naps taken several hours after getting up are not added into the total night-time sleep).

Menses

For pre-menopausal women **menses** are tracked by circling the days of the menstrual period at the bottom of the rating form.

Life Events

Life events are entered in the appropriate space with a severity of impact rating of very negative (-4) to very positive (+4) **estimating the potential impact** the event might have according to its desirability, controllability, degree of unexpectedness, possible long-term threat, and its potential for lowering or raising self-esteem.

Thus the **LCM-C/P** Rating Form follows the same basic rating principles as the patient self-rated form (LCM-S/P) and is done weekly, biweekly, or monthly in a clinical interview and uses clinician assessment of mood related functional impairment on a daily basis. (The clinician prospective rating form does not include a mood analogue scale or the recording of sleep hours, which are rated by the patient only, but has a daily box above the dysphoric mania box for tracking psychosis).

During office or clinic visits patient and clinician very carefully go over the patient's daily ratings of subjective mood and its associated functional impact. The clinician asks additional detailed questions for each day to clarify the level of impairment in the patient's ability to pursue his/her daily activities in his/her usual social and occupational roles at work, at home, or in school on a daily basis. Based on this information the clinician enters an **independent** rating of the manic and depressive severity based on how symptoms affect functional capacity. Again, **only functional impairment arising**

from mood dysregulation is rated - if the patient is incapacitated by another medical illness (such as the flu, a broken leg etc.), this does not count as functional impairment into the assessment of episode severity. If the patient forgets to fill in his/her ratings, the clinician will ask the patient to reconstruct the past days or weeks using the patient's ability to function as a measure of episode severity. If the patient is not able to help in this assessment because he/she is too severely ill, information from friends or family may also be utilized.

Life Events

The elucidation of life events follows the same principles of the retrospective assessment but has the advantage of much greater facility and accuracy of recall due to the more recent occurrence of the event. The clinician makes an independent severity of impact rating of the event based on its desirability, controllability, unanticipatedness, potential for long-term threat, and likelihood of lowering self-esteem. Severity of impact is rated on a scale of (-4) to (+4) allowing for the estimation of negative, neutral or positive impact.

On the next page we have included a sample life event checklist that some clinicians and researchers have found to be of high impact and related to subsequent mood changes or dysregulation. These events (or similar ones) may make the recording of events easier.

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)

Summary

Continuity of assessment of the longitudinal course of affective illness is critical in the evaluation of illness evolution, treatment response, and estimation of the importance of psychosocial stress. Life-charting offers a systematic and consistent method for recording retrospective and prospective course of illness, facilitates more uniform data entry and data analysis across different studies and settings, and provides a longitudinal instead of cross-sectional method of following up patients in a variety of study designs.

A refined view of improvement of treatment of episode severity or duration aids in the decision making for new medications or augmentation strategies for partially effective ones. Rational pharmacotherapies for the treatment refractory patient based on life chart review, evaluation of development of drug tolerance (i.e., has the patient's underlying course of illness changed, does the patient have a long history of non-compliance etc.), and an enhanced collaboration and therapeutic alliance with the patient based on the retrospective construction and prospective continuation of the life chart all assist in the management of this difficult chronic and recurrent illness.

Utilization of Other Rating Scales

A number of observer and self-rating scales are commonly used to assess affective symptomatology in more detail. The life chart can be conceptualized as a schema for the effective collection and integration of many different clinical instruments so that they can be targeted at either ill or well states or collected at regular intervals independent of clinical state. The life chart methodology focuses on the unifying measure of episode severity based on the degree of functional incapacitation since this allows continuity between retrospective and prospective measures. Some scales measure acute mood changes while others cover longer periods of time, such as a week; both types of scales can be effectively assimilated into the life chart as additional measures of episode onset, duration,

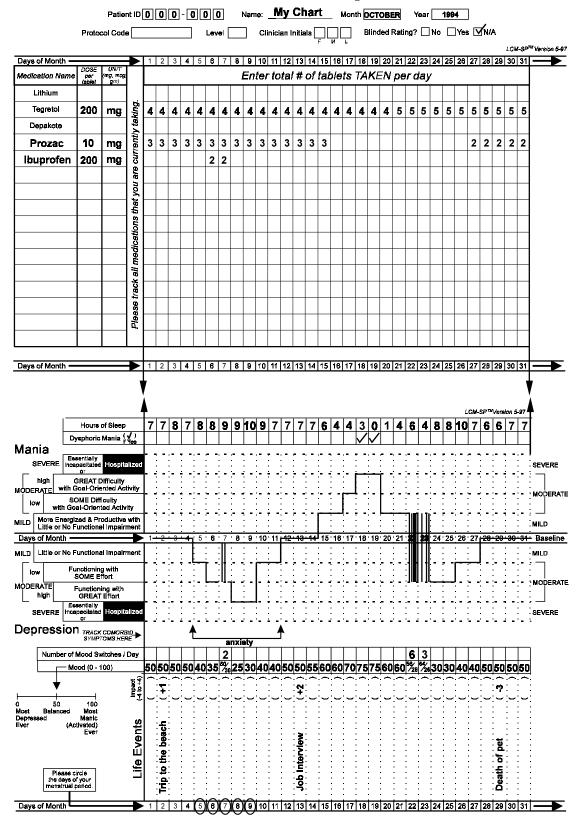
and severity according to the needs of individual investigators. These might include the **Extended Hamilton Rating Scale for Depression**, the **MADRS**, the **Young Mania Scale** for an additional objective measure of mania and specificity of manic symptoms, or the Clinical Global Impressions Rating Scale for Bipolar Disorder (**CGI-BP**).

If it is desired, other scales can supplement the functional impairment rating and the investigator can utilize global assessment scales of overall functioning such as the **GAF Scale** (DSM-IV), or the **GAS Scale** (Spitzer et al).

These and other scales could be used to supplement the daily self-and clinician ratings of mood and associated functional impairment. In our experience, however, if only a few ratings can be implemented, the daily simple longitudinal life chart ratings are generally more valuable in capturing the clinical course of affective illness than isolated or periodic rating scales which give us intermittent rather than longitudinal information and often miss significant periods of illness due to the narrower time frame of assessment (i.e., the HDRS rates the last week of the assessment period while the MRS evaluates the last 48 hours).

For your information we have added a filled-out one-month prospective **patient rating sample** (LCMTM - S/P) on the next page as a summary for your overview as well as a medication chart by drug class with both the generic and trade names.

NIMH-LCM™ Self/PROSPECTIVE Ratings: The LCM-S/P™



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) Secobarbital (Seconal) Buspirone (Buspar) Zolpidem Tartrate (Ambien)

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)