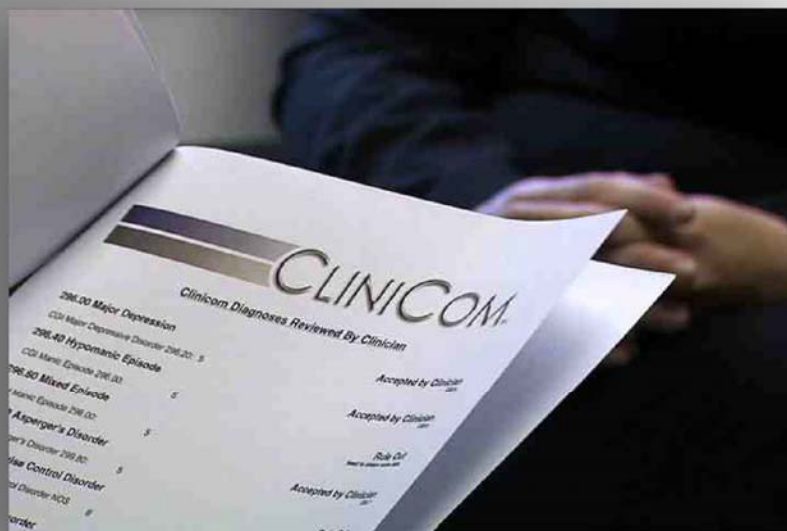


CLINICOMSM

2008 - 2009 Clinical Guidelines



A Helpful Companion
Guide Written for
Clinicians by Clinicians.

Better Information • Better CareTM

Contents

| | |
|---|--------|
| Why CliniCom? | 3 |
| Diagram of CliniCom Clinical Logic | 4 |
| CliniCom Patient Work Flow | 5 |
| i. Before Patient takes the Assessment | 5 |
| ii. Once Patient has completed Assessment | 6 |
| iii. Interview the Patient | 10 |
| iv. Formulate Your Case | 11 |
| v. Consider Your Differential Diagnosis | 12 |
| vi. Educate the Patient/Family | 14 |
| vii. Formulate Treatment Plan | 14 |
| viii. Finalize the CliniCom Report | 14 |
| Literature | 15 |

Contact Information

| | | |
|----------|--|--|
| Sales | 866.497.0111 <i>option 104</i> | clinicom@harmonex.us |
| Support | 866.497.0111 <i>option 102</i> | support@harmonex.us |
| Web Site | www.harmonex.us | |

Why CliniCom?

Physicians face the difficult task of providing competent evaluation and treatment with an appropriate level of personal attention to each patient per visit. Clinical data is the core that defines the outcome of a patient encounter. But the pressures of managed care, coupled with common practitioner challenges, have increasingly pressed physicians to see more patients in less time, which too often compromises the adequacy of clinical data, leading to missed or improper diagnoses, prolonged episodes of treatment, increased morbidity and mortality, and escalating costs for medicine and health insurance premiums. More complex psychiatric diagnoses, of course, pose the greatest risk of misdiagnosis. Hirschfeld et al. (2003), for example, in a survey of National Depressive and Manic-Depressive Association (now known as the Depressive and Bipolar Support Alliance) members found nearly 70% had a history of misdiagnosis. Those who were misdiagnosed had received an average of three and a half misdiagnoses and consulted with an average of four physicians before diagnosed correctly with Bipolar Disorder; one-third waited more than a decade before being correctly diagnosed.

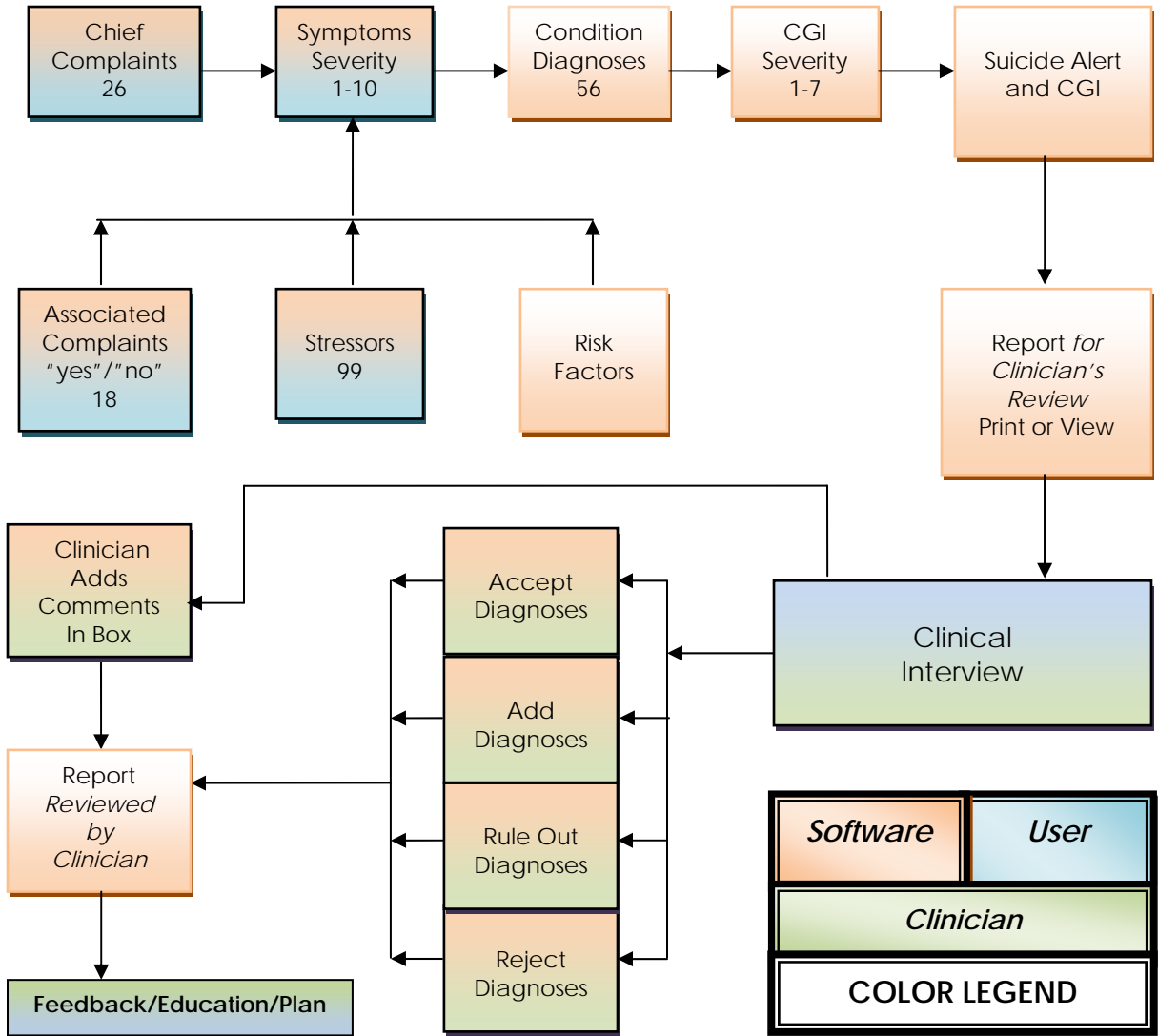
Patients aren't always as forthright as they are when interacting with a virtual agent such as CliniCom. A recent study conducted by Northeastern University College of Computer and Information Science in Boston found that patients with low "health literacy" (the ability to comprehend healthcare instructions) preferred to interact with an electronic device rather than a physician during their in-office care. This is significant, as an estimated 90 million Americans have limited literacy skills and are more likely to suffer from chronic diseases, have lower education levels and belong to older or minority groups. We also find that patient's parent(s) and/or guardian(s) prefer to disclose sensitive family or social histories in this manner especially when one is dealing with children.

Many physicians who use our technology know that their skill sets are best applied when they can optimize the amount of time they have with their patients by having as much information as possible from the onset. This way they are not cutting down on time but rather making better use of their time. This is achieved by devoting much of their initial interview toward validating the CliniCom report, educating the patient and developing the appropriate treatment plan. For example, having a digital record of information provided to you by the patient can help mitigate any possible liabilities you face as a physician. CliniCom can also help you better identify malingering and the potential for suicide in your patients.

This document contains clinical recommendations that have been compiled in order to assist clinicians in the use of CliniCom. CliniCom is a unique, artificial intelligence based computer assisted intake and assessment technology for use by patients and clinicians in mental health settings. CliniCom assesses patients for mental illnesses and provides clinicians with an unprecedented level of information regarding their patient's condition. Patients interact with the technology on their own before meeting with the clinician.

It is advisable that the clinician carefully reviews the H&P format of the CliniCom report and become familiar with it in order to expedite the assessment. Throughout this manual we will refer to the patient or guardian utilizing the system as "users." It is very important to note that in developing CliniCom, our application developers paid close attention to: accuracy, usability, intuitiveness, artificial intelligence, reliability, sensitivity, specificity, time management, security, interface, logic, length of application, user's education level (8th grade), and integration of several areas (biological, developmental, medical, psychological, psychiatric, social and legal). CliniCom has been developed and tested over a period of 6 years and is currently used throughout North America in a wide range of clinical settings.

Diagram of CliniCom Clinical Logic



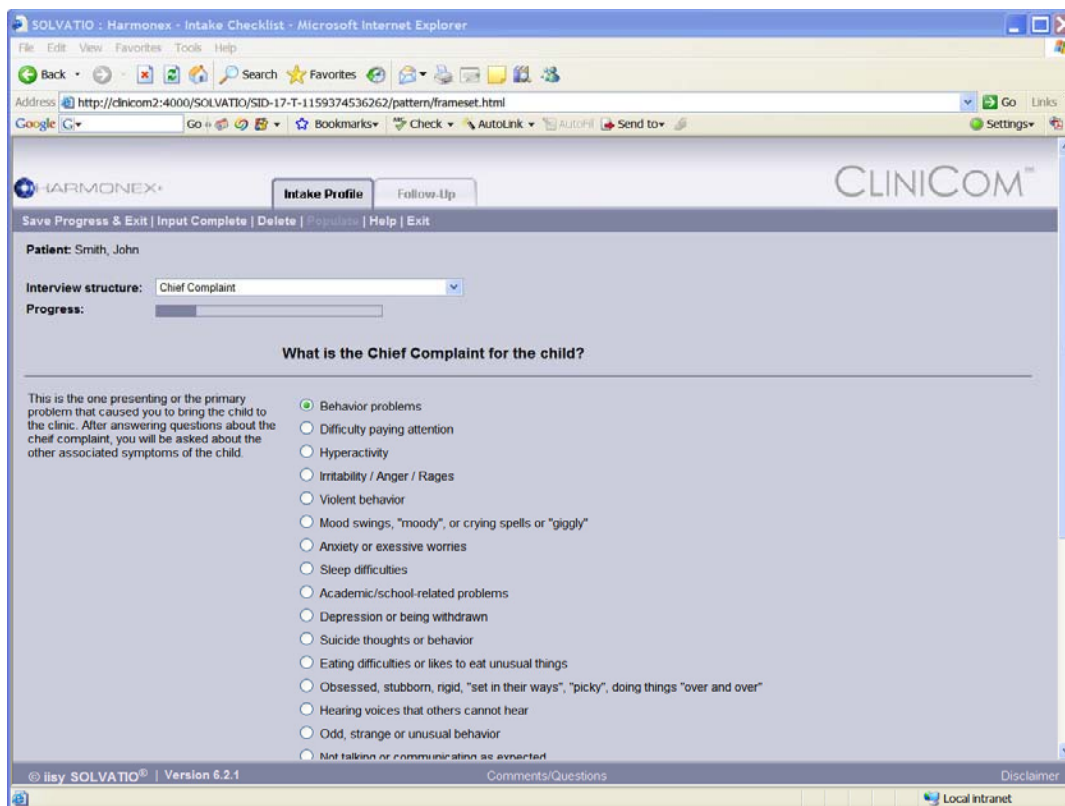
CliniCom Patient Work Flow

i. Before Patient takes the Assessment

- **The patient/guardian should have fully completed CliniCom *before* the clinical interview.** An important function of CliniCom is its' ability to save you and your staff time; this technology is intuitive and is designed as an interactive tool that the users interact with prior to their initial interview.
- **CliniCom is used to assess children, adolescents and adults.** A CliniCom user can be an adult using the self-reporting module or a guardian reporting on a child or adolescent using the third party reporting module. Take into consideration the following:
 - **Guardians should use this tool for the assessment of:**
 - Children age 5-12 *and:*
 - Adolescents age 13-17
 - **Adults should always self-report**
 - **CliniCom should not be used for:**
 - Adolescent (or children) *self-reporting*,
 - but you can corroborate, during the clinical interview, the information presented by the guardian by going through the questions with the adolescent patient
 - Adults *self-reporting* who have:
 - very serious memory problems like in Alzheimer's Disease
 - psychotic symptoms where reality testing is seriously compromised
 - mental retardation
 - Adults reporting on other adults:
 - but the adult patient may get the assistance of an adult
 - Geriatric patients, no exceptions
- **Severity scores *before* treatment.** Make sure the user understands that he or she marks the severity of the questions representing the patient's functioning at baseline, before treatment and not counting the effect of treatment; which is asked in a different question set, when interacting with CliniCom. For instance, if the patient felt very depressed before treatment the answer could be 9 (on a severity scale of 0-10), not a 5 (on a severity scale of 0-10) after having received treatment.
- Please refer to the CliniCom Quick Reference Guide for detailed information on entering patient data into the CliniCom system. If you should have any further questions please contact our support desk at 1.866.497.0111.

ii. Once Patient has completed Assessment

- **Review the printed or electronic initial assessment report** which is presented in a standard H&P format. This process takes a few very valuable minutes and allows for enhanced face-to-face time with the patient. Reviewing the information prior to the assessment allows you to begin working on the patient's bio-psycho-social formulation and possible differential diagnoses. The report does not allow for changes made by the user once the user ends the assessment in the computer. This guarantees compliance with strict rules associated with confidentiality--Health Information and Portability Act (HIPPA). It is very important to understand that the questions the patients see on the screen are very detailed and have several examples of the case-in-point. On the report, the same questions, now symptoms, presented to the clinician are spelled out based on the DSM-IV-TR verbiage.
- **Assess grammar, syntax, volume, detail and coherence of the information** because these are very valuable indicators of the overall patient's cognitive functioning and may guide you in deciding how to approach the interview. CliniCom is easy for patients of all socioeconomic backgrounds to use and has been designed for users who read at an 8th grade level.
- **Focus on the Chief Complaint** and try to understand how it relates to the information in the report because this may be a way to look for the reliability and consistency of the reporter and address the reason why the patient or guardian is seeking help.
 - **The 26 Chief Complaints that the user selects:**
 1. *Suicide thoughts or behavior*
 2. *Depression or being withdrawn*
 3. *Anxiety or excessive worries*
 4. *Odd, strange or unusual behavior*
 5. *Hearing voices that others cannot hear*
 6. *Abuses nicotine, and/or alcohol, and/or drugs and/or pills, and/or inhalants*
 7. *Obsessed, stubborn, rigid, "set in their ways", "picky", doing things "over and over"*
 8. *Behavior Problems*
 9. *Difficulty paying attention*
 10. *Hyperactivity*
 11. *Irritability, anger, rages*
 12. *Violent behavior*
 13. *Mood instability, "moody", or crying spells, or "giggly"*
 14. *Sleep difficulties*
 15. *Experienced traumatic event or victim of abuse*
 16. *Failed to develop age appropriate relationships*
 17. *Eating difficulties or likes to eat unusual things*
 18. *Academic/School-related problems*
 19. *Not talking or not communicating as expected for his/her age*
 20. *Legal Problems*
 21. *Abnormal Movements*
 22. *Very scared about certain things, people, animals, places, weather, blood, heights, enclosed places, choking, illness, etc.*
 23. *Difficulty remembering familiar people or events, not feeling like his/herself, time loss, like in trance*
 24. *Very uncomfortable in social situations, public engagements, or refusing to go to school*
 25. *Very severe problems controlling urges (pulling hair, setting fires, gambling, stealing, fighting, playing video or computer games)*
 26. *Other*



- **Review associated complaints.** One important aspect of CliniCom is the compulsory “Yes” or “No” answers that the user faces when answering if they do or do not present with history of having OTHER symptoms or behaviors. In other words, the user MUST answer “Yes” or “No” when facing the list of the associated complaints; which is the same as the list of chief complaints MINUS the chief complaint initially chosen. For instance, the user is forced to answer “Yes” or “No” when asked about item number 6 (*Abuses nicotine, and/or alcohol, and/or drugs and/or pills, and/or inhalants*) from the list above, if the user did not chose item number 6 as their chief complaint.
- **Over-rating or under-rating** are important factors that will determine the validity of the diagnoses suggested for review and the Clinical Global Impression. Patients’ who have poor insight, are malingering, have secondary gains, are seeking disability, have legal issues or have cognitive limitations (i.e. low IQ or memory problems) may have reports that are not consistent with your clinical impression. Watch for symptom severity numbers that are unusually high –especially severity of 10 for multiple symptoms. CliniCom does not estimate “fake good” or “fake bad” users. If you notice that there are an excessive amount of suggested diagnoses in the report, it is important to consider these limitations on the part of the user as a factor. In these particular cases, it is recommended that the clinician very closely validate the report during the clinical interview.
- **Look for sensitive information** in the “Safety”, the “Substance Abuse” and the “Legal” sections of the Social History. This information may offer data that the patient may feel reluctant or uncomfortable to discuss during the interview, but may feel more comfortable addressing it in the computer. If that is the case, you may acknowledge to the patient that you are aware of the presence of sensitive information, but that you are willing to discuss it whenever the patient feels comfortable.

- **Each symptom is rated from 0-10 and 4 is the threshold number.** The user can choose a severity number from 0-10 where 0 = symptom not present, 10 = most severe symptom. 4/10 is the threshold for any CliniCom symptom to be accounted as “positive” into the criteria set.
- **CliniCom screens for 56 possible psychiatric conditions** based on the DIAGNOSTICS AND STATISTICS MANUAL OF MENTAL CONDITIONS, Fourth Edition, Text Revised. (DSM IV-TR). The DSM IV-TR is the basic source of clinical diagnostics as it is a manual widely accepted by the medical community as the gold standard for diagnosing psychiatric conditions. In addition, CliniCom’s logic is based on clinical guidelines suggested by the American Psychiatric Association, (APA) and the American Academy of Child and Adolescent Psychiatry (AACAP) as well as research data results published in major clinical journals.

- **The following conditions are assessed with CliniCom:**

- | | | | |
|-----|---|-----|---|
| 1. | 308.30 Acute Stress Disorder | 28. | 296.00 Manic Episode |
| 2. | 307.10 Anorexia Nervosa | 29. | 296.60 Mixed Episode |
| 3. | 300.00 Anxiety Disorder NOS | 30. | 296.90 Mood Disorder NOS |
| 4. | 299.80 Asperger's Disorder | 31. | 300.30 Obsessive Compulsive Disorder |
| 5. | 314.01 Attention-Deficit Hyperactivity Disorder, Combined Type | 32. | 313.81 Oppositional Defiant Disorder |
| 6. | 314.01 Attention-Deficit Hyperactivity Disorder, Predominantly Hyperactive-Impulsive Type | 33. | 300.20 Overanxious Disorder |
| 7. | 314.00 Attention-Deficit Hyperactivity Disorder, Predominantly Inattentive Type | 34. | 300.01 Panic Disorder |
| 8. | 314.90 Attention-Deficit Hyperactivity Disorder NOS | 35. | 299.80 Pervasive Developmental Disorder NOS |
| 9. | 299.00 Autistic Disorder | 36. | 307.52 Pica |
| 10. | 296.60 Bipolar I Disorder | 37. | 309.81 Posttraumatic Stress Disorder |
| 11. | 296.60 Bipolar I Disorder, Mixed | 38. | 298.90 Psychotic Disorder NOS |
| 12. | 296.89 Bipolar II Disorder | 39. | 313.89 Reactive Attachment Disorder |
| 13. | 298.80 Brief Psychotic Disorder | 40. | 295.70 Schizoaffective Disorder |
| 14. | 307.51 Bulimia Nervosa | 41. | 295.20 Schizophrenia, Catatonic Type |
| 15. | 307.90 Communication Disorder | 42. | 295.10 Schizophrenia, Disorganized Type |
| 16. | 301.14 Cyclothymic Disorder | 43. | 295.30 Schizophrenia, Paranoid Type |
| 17. | 294.80 Dementia NOS | 44. | 295.60 Schizophrenia, Undifferentiated Type |
| 18. | 311.00 Depressive Disorder NOS | 45. | 295.40 Schizophreniform Disorder |
| 19. | 312.09 Disruptive Behavior Disorder NOS | 46. | 313.23 Selective Mutism |
| 20. | 300.15 Dissociative Disorder NOS | 47. | 309.21 Separation Anxiety Disorder |
| 21. | 300.40 Dysthymic Disorder | 48. | 307.40 Sleep Disorders |
| 22. | 307.70 Encopresis | 49. | 300.23 Social Phobia |
| 23. | 307.60 Enuresis | 50. | 300.29 Specific Phobia |
| 24. | 300.20 Generalized Anxiety Disorder | 51. | 307.00 Stuttering |
| 25. | 312.30 Impulse Control Disorder | 52. | 305.90 Substance Abuse |
| 26. | 315.90 Learning Disorder NOS | 53. | 304.90 Substance Dependence |
| 27. | 296.00 Major Depressive Disorder | 54. | 307.22 Tic Disorder, Chronic Motor or Vocal |
| | | 55. | 307.23 Tourette's Disorder |
| | | 56. | 000.00 Traumatic Brain Injury (“Consider”) |

- **Conditions NOT included for assessment with CliniCom**

1. Factitious Disorders,
2. Somatoform Disorders,
3. Amnestic Disorders,
4. Delirium,
5. Dementia,
6. Mental Retardation
7. Sexual and Gender Identity Disorders,
8. Personality Disorders,
9. Adjustment Disorders,
10. Psychiatric Disorders due to Medical Conditions.

- **CliniCom automatically calculates a Clinical Global Impression Scores (CGI) for each condition** suggested for the clinician's review and they run from 1 to 7 where 1 is "not ill", 2 is "very mildly ill", 3 is "mildly ill", 4 is moderately ill", 5 is "markedly ill", 6 "is seriously ill" and 7 is "extremely ill".
- **Make sure to review the Comprehensive Suicide Alert's CGI score.** One of the most powerful tools that CliniCom offers is the comprehensive suicide alert, "Suicidality", which is not considered a condition, but rather "a state". The logic estimates the possibility for somebody to commit suicide, but it does not "predict" somebody's chances to commit suicide. The suicide logic is complex as it pulls and weighs risk factors from multiple areas (i.e. history of previous suicidal attempts, stressors, history of abuse, family history, diagnoses, hospitalizations, etc.). The suicide algorithm includes questions associated with active risk factors (ARF) (i.e. suicide ideations, intent, plan, violent or aggressive behavior, history of substance abuse, etc.); passive risk factors (PRF) (i.e. family history of suicide, psychiatric conditions, legal problems, etc.; includes 25 PRFs associated with stressors.); active protective factors (APF) (i.e. fear pain of dying, problem solving skills, etc.), and passive protective factors (PPF) (i.e. family, religion, support, etc.). The logic automatically calculates a Clinical Global Impression (1-7) severity index for suicide. We recommend that patients with CGI of 3 be seen by a psychiatrist within the next 72 hours; CGI of 4 in 24-48 hours at the latest. Patients with CGIs of 5 should be seen by a psychiatrist at the latest within 24 hours; patients with CGIs of 6 and 7 should be sent to the emergency room. *These are general guidelines and may not prevent a patient from committing suicide, thus it is ultimately the clinician's responsibility and judgment that will determine the patient's disposition for safety. Consequently, please use these guidelines with extreme caution.*
- **Rule out Traumatic Brain Injury (TBI).** Due to the risk and under-diagnosis of Traumatic Brain Injury (TBI), CliniCom includes a clinical algorithm based on recent military research data that screens for this condition. TBI is evoked only as "Consider Traumatic Brain Injury" in the Diagnosis section. Traumatic brain injury (TBI), also called acquired brain injury or simply head injury, occurs when a sudden trauma causes damage to the brain. For example, TBI can result when the head suddenly and violently hits an object, or when an object pierces the skull and enters brain tissue. Symptoms of a TBI can be mild, moderate, or severe, depending on the extent of the damage to the brain. A person with a mild TBI may remain conscious or may experience a loss of consciousness for a few seconds or minutes. Other symptoms of mild TBI include headache, confusion, lightheadedness, dizziness, blurred vision or tired eyes, ringing in the ears, bad taste in the mouth, fatigue or lethargy, a change in sleep patterns, behavioral or mood changes, and trouble with memory, concentration, attention, or thinking. A person with a moderate or severe TBI may show these same symptoms, but may also have a headache that gets worse or does not go away, repeated vomiting or nausea, convulsions or seizures, an inability to awaken from sleep, dilation of one or both pupils of the eyes, slurred speech, weakness or numbness in the extremities, loss of coordination, and increased confusion, restlessness, or agitation.

- **Formulary.** CliniCom has an extensive formulary in a drop down window and it includes brand and generic names of medications which facilitates the selection by the user.

© iisy SOLVATIO® | Version 6.2.1 Comments/Questions Disclaimer

- **Other electronic medical records systems (EMR)** can be easily integrated with the CliniCom report. You may choose to point link the CliniCom report to the corresponding patient record. If you do not use EMR's, you may choose to print the report for review prior to meeting with the patient.

iii. Interview the Patient

- **Relax and comfortably start the interview.** Now that you have so much information about your patient, you can **thank them for using their time** to provide you with all the details of their mental health problems. You always felt envious of the other specialties that have an armamentarium of tools, like EKG, imaging, labs, etc., that help them have an advantage over psychiatrists; or as a generalist or pediatrician you always felt the anxiety of having to "face the difficult psychiatric patient or their family" without even having time or experience to do a basic psychiatric evaluation. Now you can actually establish a better rapport with the patient/family because you feel less pressure.
- **Now optimize this valuable time** since you already have the severity of the symptoms rated by the user and are aware of the conditions that they may meet criteria for, you now have a virtual H&P at hand and can provide even more individual attention and optimize the time you have with the patient. During the actual initial clinical interview, CliniCom should be used as a baseline to identifying the correct diagnoses for the particular patient. CliniCom assigns a CGI

score to each suggested diagnoses and this should be taken into consideration to further evaluate which conditions are the most impairing for the patient and which is your “working diagnoses.”

- **The patient may have typed information into CliniCom, something very important and sensitive (i.e. abuse issues) that he/she may not be comfortable verbalizing.** It probably is interesting for you to know that research shows that the majority of patients/guardians prefer to disclose sensitive issues to a virtual agent such as a computer instead of initially verbalizing the information to the clinician. You can tell the patient/guardian something like “I noticed on the CliniCom report that there is some sensitive information concerning a traumatic event, do you feel comfortable discussing this now?”
- **Make sure that the CliniCom data is as correct and valid as possible to help you make YOUR DIAGNOSES** as it is very easy to comb through the suggested diagnoses with the patient even in cases where educational limitations are an issue simply by using the list of symptoms and the suggested diagnoses as a roadmap.

iv. Formulate Your Case

Take into consideration the following essential bio-psycho-social inventory as a foundation for your formulation:

- ***BIOLOGICAL***
 - Family History and possible genetic predisposition
 - Medical History
 - Seizures
 - Head Injury
 - Impact of acute and/or chronic health problems
 - Surgery
 - Hypoxia
 - Long term exposure to medications/drugs/alcohol
 - Long term or prenatal exposure to drugs and alcohol
- ***PSYCHOLOGICAL***
 - Relationships
 - Losses
 - Coping skills
 - Ego defenses
 - Self-esteem
 - Personality
 - Cognitive status, intelligence
 - Abuse
- ***SOCIAL***
 - Support system
 - Family
 - Education
 - Work/Finances
 - Safety
 - Legal

- Disability
- Neglect
- Access to mental health
- Strengths and weaknesses
- Religion and culture

v. Consider Your Differential Diagnoses

Even though CliniCom Reports suggest possible diagnosis, they are never intended to replace a doctor's professional opinion. CliniCom reports should never be used strictly as a diagnostic instrument but more as a reference point used in establishing a diagnosis after conducting a comprehensive evaluation, interview, formulation and consideration of a differential logic by a qualified clinician.

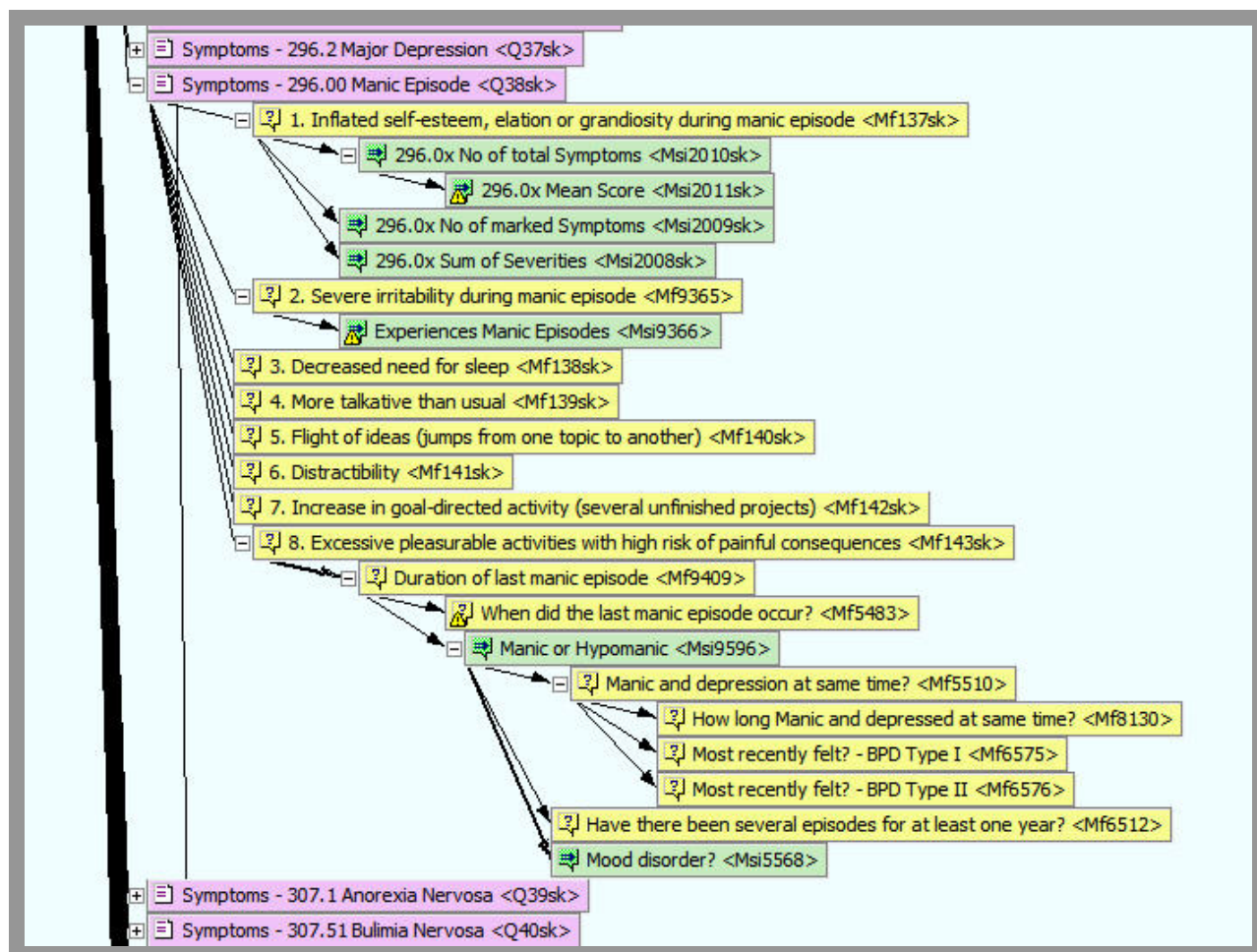
- **If you are not qualified to consider a differential diagnosis, please make sure you refer the patient with those concerns to a qualified clinician.** Many non-psychiatric physicians, who treat adults, feel comfortable treating depression in adults, but many pediatricians feel very uncomfortable doing so in children. The reverse is true for ADHD. Some pediatricians and adult psychiatrists feel uncomfortable diagnosing children or adults with Autism or PDD spectrum conditions. If this is the case, they may refer the patient to a specialist for further evaluation based on CliniCom's data. This highlights the importance of careful validation of the CliniCom report by a qualified clinician.
- **WARNING: CliniCom is not a "diagnostic test",** but is a clinical decision support system (CDSS) that facilitates the organized collection and use of knowledge-based information on an artificial intelligence platform that in turn transforms information, based on certain rules, (i.e. DSM-IV-TR, APA Guidelines, evidence based research, etc.) into knowledge. The information and knowledge can be validated ONLY by the qualified clinician.

Some challenges in making a differential diagnosis utilizing CliniCom:

- **PDD spectrum versus OCD.** In some cases the questions related to the repetitive behavioral aspects of Pervasive Developmental spectrum disorders may be overlapping with compulsions associated with OCD.
- **PDD versus Schizophrenia.** The odd or bizarre behavior observed in PDD may overlap with bizarre behavior that is seen in schizophrenia
- **OCD versus no-OCD.** CliniCom's question sets for OCD are very detailed and have many examples, but many patients' or guardians who truly suffer from OCD do not have insight into the condition and perceive it as "normal", thus the condition is not suggested by CliniCom because the symptoms are minimized by the user.
- **OCD versus schizophrenia.** Some ritualistic behavior of OCD may be bizarre and needs further assessment.
- **Schizophrenia versus communication disorders.** Some verbal negative symptoms reflecting schizophrenia may be associated or overlap with expressive language disorder/communication disorder or selective mutism.
- **Schizophrenia versus social phobia.** Lack in social interaction reflecting schizophrenia may be associated or overlap with social phobia or selective mutism.
- **Schizophrenia versus no-schizophrenia.** The CliniCom's logic for schizophrenia is very detailed and follows the exact guidelines of the DSM-IV-TR in terms of number of

symptoms and timeframes and can suggest this diagnosis with several subcategories. Some clinicians may feel that the diagnosis of schizophrenia suggested by CliniCom is not accurate because of the preconceived notion that the patients with schizophrenia “have to hear voices and/or be delusional”. It is important to remember that the DSM-IV-TR requires at least 2 of *any* of the 6 criteria (delusions, hallucinations, disorganized speech, catatonic behavior, flat affect, less interest in activities) from section A for 6 months with functional impairment in order to consider schizophrenia.

- **Schizophrenia versus depression.** Some of the negative symptoms reflecting schizophrenia may be associated or overlap with major depression
- **ADHD versus Bipolar disorder.** Some of the distractibility, hyperactivity and impulsivity symptoms reflecting ADHD may be associated or overlap with Bipolar Disorder.
- **ADHD versus communication disorders.** Some symptoms associated with inattention may be associated or overlap with receptive language disorder/communication disorder
- **Bipolar versus no-Bipolar.** Very frequently the user “does not remember” the duration of the manic episodes or they will mark that the manic episode lasted 3 days or less. This does not formally qualify a manic episode which requires at least 4 days in duration. These are the challenges faced in operating with rules that are concrete or “all or nothing” as is the case with the DSM-IV-TR standard. CliniCom’s logic for mood disorders is very detailed and follows the exact guidelines of the DSM-IV-TR in terms of number of symptoms and timeframes. It can suggest Bipolar Disorder with several subcategories; but if users do not remember the timeframes of the manic episodes, the diagnosis will not be accurate and needs further intervention from the clinician. (see algorithm below)



Important: You can call Harmonex Toll Free at 1-866-497-0111 if you have clinical questions that you need to discuss and a clinician will contact you to address your questions or concerns.

vi. Educate the Patient/Family

- **Share your thoughts about YOUR possible diagnoses with the patient and/or family.** Many clinicians' use the CliniCom report to share with the patient/family the reason why they are coming to certain diagnostic conclusions. The CliniCom report can also be used as a great educational tool which allows the clinician to "show how and why" diagnostic decisions are being made and institute the appropriate level of care and treatment planning.
- **"Why am I bipolar"?** well, now you can bring the user's answers into play in order to respond to this and many similar questions utilizing the CliniCom report.
- **"Why are you going to treat me with that medication?" ... or "I did not know I had OCD, don't they have to wash their hands a lot?"** These are going to be questions that will culminate with very appropriate answers that have concrete evidence as long as you feel that the user is reliable.

vii. Formulate Treatment Plan

- **Think about integrating the information** from CliniCom, your interview, your differential diagnoses and formulation to create a treatment plan that may include further testing, getting additional information from different sources, therapy, medication, referrals, etc.
- **Share your treatment plan options** making concrete recommendations for referrals, further testing, therapy and/or medication treatment connecting them with your diagnoses and using CliniCom as a reference.

viii. Finalize the CliniCom Report

- Once the patient has been seen by the clinician, the report and information contained within should be carefully validated by:
 - Accepting Diagnoses
 - Adding Diagnoses
 - Ruling Out Diagnoses
 - Rejecting Diagnoses
 - Accepting CGIs
 - Changing CGIs
 - Utilizing the TEXT BOX to make comments reflecting
 - Your formulation
 - User's reliability
 - Diagnostic challenges
 - Further testing needed
 - Treatment recommendations
 - Referrals
- Consider using the option of:

- o Printing a Final Report (15 plus pages) to hand to your patient or send to your referral source
- o Printing a Summary Report (2 pages) to hand to your patient or send to your referral source

The screenshot displays the CLINICOM software interface for a "Diagnosis Evaluation". At the top, the HARMONEX logo is on the left and the CLINICOM logo is on the right. The main heading is "Diagnosis Evaluation" with a sub-heading "Suggested Diagnoses". Below this is a "CGI Severity Scale" legend: 1 - Normal (not at all ill), 2 - Borderline mentally ill, 3 - Mildly ill, 4 - Moderately ill, 5 - Markedly ill, 6 - Severely ill, 7 - Extremely ill.

Three suggested diagnoses are listed:

- 307.90 Communication Disorder**: The "Accepted by Clinician" dropdown is set to "CGI 3".
- 314.00 Attention-Deficit Hyperactivity Disorder, Predominantly Inattentive Type**: The "Reject" dropdown is open, showing options: "Lack of observer's reliability", "Clinical impression", "Lack of information", and "Technology limitations". The selected value is "5 undefined".
- 315.90 Learning Disorder NOS**: The "Rule Out" dropdown is open, showing options: "Emerging condition", "Need to obtain more data", and "Imprecise clinical criteria". The selected value is "5".

Literature

1. American Psychiatric Association: Practice Guideline for Psychiatric Evaluation of Adults. Am J Psychiatry 1995; 152(Nov suppl):63-80
2. Ancill. R.J. et al: Comparison of computerized self rating scales for depression with conventional observer rating. Acta Psychiatrica Scandinavica, 1985, 71, 315-317.
3. Anthony JC, et al: Comparison of the lay Diagnostic Interview Schedule and a standardized psychiatric diagnosis: experience in eastern Baltimore.
4. Carr AC, Ghosh A, Ancill RJ: Can a computer take a psychiatric history? Psychol Med 1983; 13:151-158
5. Carr AC, Ghosh A: Response of phobic patients to direct computer assessment. Br J Psychiatry 1983; 142:60-65
6. Cohen P. et al: Child psychiatric diagnosis by computer algorithm: theoretical issues and empirical tests, J Am Acad Child Adolesc Psychiatry, 1987 Sep;26(5):631-8.
7. Diagnostic and Statistical Manual of Mental Disorders (DSM IV-TR), published by the American Psychiatric Association, May 2000
8. Erdman BP, Klein ME, Greist JH, et al: A comparison of the Diagnostic Interview Schedule and clinical diagnosis. American Journal of Psychiatry 144:1477-1480, 1987
9. Greist, M.D., JH: Clinical Computing: The Computer as Clinician Assistant: Assessment Made Simple, Psychiatr Serv 49:467-472, April 1998
10. Grove WM, et al: Reliability studies of psychiatric diagnosis: theory and practice. Arch Gen Psychiatry 1981; 38:408-413
11. HIMSS, 17th Annual HIMSS Leadership Survey Results, Patient Satisfaction, Safety, Electronic Records Top List of Healthcare Priorities

12. Keller MB, et al: Reliability of lifetime diagnoses and symptoms in patients with a current psychiatric disorder. *J Psychiatr Res* 1981; 16:229-240
13. Kobak KA, Greist JH, Jefferson JW, et al: Computer-administered clinical rating scales. a review. *Psychopharmacology* 1996; 127:291-301
14. Kobak KA, Taylor LH, Dotti SL, et al: Computerized screening for psychiatric disorders in an outpatient community mental health clinic. *Psychiatry Serv* 1997; 48:1048-1057
15. Kobak KA, Taylor LvH, Dotti SL, et al: A computer-administered telephone interview to identify mental disorders. *JAMA* 278:905-910, 1997[Abstract]
16. Lehmann C. : Hospital's Computer System Reduces Medical Errors, Tracks Quality, *Psychiatric News*, May 16, 2003, Volume 38 Number 10
17. Levitan, R.D. et al: Validity of the computerized DIS for diagnosing psychiatric inpatients. *Canadian Journal of Psychiatry*, 1991, 36, 728-731.
18. Lewis G. et al: The development of a computerized assessment for minor psychiatric disorder. *Psychological Medicine*, 1988, 18, 737-745.
19. Lipton AA, Simon FS. Psychiatric diagnosis in a state hospital: Manhattan State revisited. *Hosp Community Psychiatry*. 1985;36:368-373.
20. May J, Miller PR. Note-taking and information recall. *J Amer Med Educ*. 1977;52:524-525.
21. Morelli R.: Artificial intelligence in psychiatry: issues and questions, *Engineering in Medicine and Biology Society*, 1989. *Images of the Twenty-First Century.*,
22. Nakeesh A. Dewan: *Behavioral Health Care Informatics*, Published by Springer, 2002 ISBN 0387952659, 9780387952659
23. Overby J. : An expert system prototype for aiding psychiatrists in the diagnosis of psychotic disorder. *Computers in Biology and Medicine*. 1987, 17, 338-392.
24. Ramirez Basco M., Ph.D., et al: Methods to Improve Diagnostic Accuracy in a Community Mental Health Setting, *Am J Psychiatry* 157:1599-1605, October 2000
25. Skodol AE, Williams JBW, Spitzer RL, et al: Identifying common errors in the use of DSM-III through supervision. *Hosp Community Psychiatry*. 1984;35:251-255
26. Stevens J., PhD, et al: Trial of Computerized Screening for Adolescent Behavioral Concerns, *Pediatrics* Vol. 121 No. 6 June 2008, pp. 1099-1105 (doi:10.1542/peds.2007-1878)
27. Weinstein SR, et al: Comparison of DISC with clinicians' DSM-III diagnoses in psychiatric inpatients. *J Am Acad Child Adolesc Psychiatry* 1989; 28:53-60
28. Williams et al.: A computer-assisted psychiatric assessment unit, *Am J Psychiatry* 1975; 132: 1074-1076
29. Wing. J.K. et al: SCAN - Schedules for Clinical Assessment in Neuropsychiatry. *Archives of General Psychiatry*. 1990, 47, 589-593.
30. Yokley JM, Coleman DJ, Yates BT: Cost-effectiveness of three child mental health assessment methods: computer-assisted assessment is effective and inexpensive. *Journal of Mental Health Administration* 1990; 17:99-107