The Structure of a Computer-Assisted Treatment Plan for Psychiatric Inpatients – Meeting Standards and Improving Care

James Vess, John Brush, Renee Oertel
Atascadero State Hospital, California, USA.

ABSTRACT

Objective: To evaluate improvements in the quality of care, and meeting standards set by the Joint Commission for the Accreditation of Healthcare Organizations (JCAHO) following the implementation of computer-assisted treatment planning software.
Design: Retrospective analysis of benefits after software implementation.
Setting: A 1,100 bed maximum security forensic psychiatric state hospital located in California.
Methods: Customised software was developed and refined to the present Clinical Delivery System. The system is based on an object-oriented client–server model, connected via a local area network.
Results: Improved access to patient treatment plan information. Improved standardisation of documentation format and content. Improvements in the interdisciplinary treatment planning process and information management. Consistent meeting of relevant accreditation and licensure standards.
Conclusion: The computer-assisted treatment planning software and its associated procedures have substantially improved the quality of our treatment planning process and associated documentation. It has also provided standardised aggregate databases that support programme evaluation and research.

INTRODUCTION

Advances in information technology have provided opportunities for improved management of information in a variety of healthcare settings. It has been noted that the availability of complete, accurate and structured information is necessary for such functions as clinical audit, service planning, managing resources and research, as well as demonstrating statutory and regulatory compliance¹. These information needs became increasingly evident at Atascadero State Hospital, (ASH), a maximum security facility housing approximately 1,100 forensically...
committed males. It was recognised by both administrative and clinical staff that improved standardisation of information management and treatment planning procedures would provide a variety of benefits. Consequently, a computerised system of recording common assessment data and creating treatment plans was developed, implemented and subsequently refined.

**Effective Treatment Planning**

Treatment planning for psychiatric inpatients requires several essential elements. It must consistently reflect a coherent approach to the problems and conditions of the patients receiving treatment. It should be based on an integration of relevant, standardised assessment data that are compatible with the identified treatment approach. Treatment decisions and interventions should relate directly to the assessment findings. Treatment goals should be specific, objective and measurable. Treatment goals should relate directly to the functional requirements of the anticipated discharge environment. Assessments should be repeated periodically, and the treatment plan modified to reflect the patient’s response to treatment and to facilitate progress toward discharge criteria. Optimally, the assessment and treatment planning process will provide data that can be aggregated for programme and outcome evaluation, in addition to guiding the care of individual patients.

**Interdisciplinary Teamwork**

Team functioning can be viewed as consisting of three interrelated sets of elements:

- **Structural elements**
- **Procedural elements**
- **Interpersonal elements**

Structural elements consist of factors such as team membership, each member’s responsibilities, the patient caseload, and available material and support resources. Procedural elements include the conceptual framework which guides the team’s clinical work, the language used to conduct this work and the decision making process employed by the team, along with the actual business rules that govern the team process. The interpersonal elements reflect the personality and communication style of team members in interaction with one another. To the degree that clear parameters for the structural and procedural elements of the interdisciplinary treatment team are enforced and reinforced, team functioning can be maximised and conflict contained or minimised. Applying computer automation to this process has compelled the development and implementation of much clearer parameters than were previously in place.

Training has been conducted with the thirty different interdisciplinary treatment teams at ASH on several occasions. Training sessions focused on aspects of team functioning and direct observation of the team process. The trainer working with all teams observed that a common source of difficulty stemmed from an
unstructured team process and a lack of clear expected outcomes. This was sometimes combined with a lack of a clearly defined approach to the team’s functions and responsibilities. Such teams often wasted considerable time in inefficient assessment or therapeutic exchanges with the patient during treatment planning conferences. It was also evident that the treatment and rehabilitation goals of the various treatment team members were often substantially different, or in some cases poorly defined.

Defining the Team Process
Even highly competent and motivated treatment teams will be undermined if the agency and management fail to articulate a clear mission and priority for rehabilitation\(^4\). California’s Department of Mental Health took a significant step in this regard when it explicitly identified biopsychosocial rehabilitation – more recently referred to as psychiatric rehabilitation\(^5\) – as the treatment approach for services provided in the state hospitals. This approach emphasises both psychiatric symptoms and functional skills, recognising the role of psychotropic medications and psychosocial skill-building activities in the patient’s overall treatment programme. Another important element of this approach is the focus on objective, measurable treatment goals.

Psychiatric rehabilitation thus provides some of the necessary conditions identified by Liberman and colleagues for effective team functioning, including a common frame of reference for understanding patient needs and a common treatment philosophy\(^4\). But as these authors point out, the concept of multidisciplinary teamwork is a vision in search of practical tools. It was still necessary to provide the team with a mechanism to communicate about a patient’s goals, progress and problems. A common language is needed that reflects the psychiatric rehabilitation approach and facilitates efficient, focused communication among team members. Procedures are needed that guide the team process in assessing the patient’s current status in relation to discharge requirements, evaluating how well the current treatment services are meeting identified needs and modifying the treatment plan accordingly. These procedures must allow for consistent re-evaluation of the patient at regular intervals and individualisation of the treatment plan according to the patient’s needs as they change over time. Only with these elements in place can the treatment team proceed efficiently in providing clinical services relevant to discharge requirements.

Role of the Written Treatment Plan
The written treatment plan is the mechanism by which patient care is organised, communicated and directed\(^6\). Its value lies in its ability to convey to care providers a clear sense of the patient’s current status, the focus of treatment, the interventions to be provided and the treatment goals within a defined timeframe. The plan thus guides the provision of treatment services, promotes communication
and coordination of care among treatment staff and helps to ensure continuity of care throughout the course of hospitalisation.

The process of treatment planning, when adequately standardised and explicitly defined, can structure the roles of the various team members and the team’s activities during treatment planning conferences. Clearly defined assessment procedures and decision-making rules were also needed before a computer-assisted treatment planning process could be implemented. What began as a treatment planning process with substantial variation across treatment teams had to first become sufficiently uniform before computer automation could be developed to support this process.

METHODS

Computer-Assisted Treatment Planning – Atascadero (CATPA)
A description of the CATPA development process from a clinical perspective has been presented elsewhere. The implementation of this system also involved substantial developments in information technology for ASH. The first version of CATPA was programmed as software that would be accessible in treatment planning areas and share a common repository of information. The ASH local area network (LAN) provided connectivity for the team computers located in the treatment conference rooms and to the computer room where the file server resided. The configuration employed was a file server system; all computational intelligence (in this case the CATPA computer program) resided on the personal computers at individual workstations. It was the CATPA software’s responsibility to determine which files should be read and how to directly access the network file server.

The database and user interface were designed to assure accurate, manageable and accessible information. Inclusion of reference lists helped to promote data accuracy by providing users with pick lists of valid responses. This allowed for the integration of external data sources for current patient demographics, legal and medical information.

Clinical Delivery System (CDS): The Second Generation System
CDS represents the second generation of computer-assisted treatment planning at ASH. It is a more integrated, flexible and comprehensive application that is designed to support a wide range of clinical delivery functions. Although advances in telecommunications and computing have provided more power and choices in the design, deployment and management of information services, the breadth of technologies available represented a challenge for the second generation system.

To establish the CDS architecture, ASH identified the technical, financial and functional requirements. This was done through a multidisciplinary workgroup
consisting of clinicians, IT staff, programme managers and hospital administra-
tors meeting regularly to develop the system. Current and anticipated systems and
their necessary applications were reviewed regarding how they would fit into the
ASH environment. Once articulated, these considerations provided a framework
to use in the selection of technologies for CDS development. With an emphasis on
flexibility and change, the following goals were established:

• Provide easy, transparent and secure access to data
• Support rapid development and deployment of new applications
• Support rapid modifications of existing applications
• Take advantage of existing investments in hardware, applications and staff
  skills
• Support current and emerging technologies and standards
• Provide a positive user experience to encourage conscientious use of the
  application
• Support dynamic reconfiguration of systems for scalability or networking
  requirements
• Support portability, reliability, availability and security
• Ensure environment independence

CDS tool selection was based on the existing system architecture and did not
require redevelopment of the core systems. An object-oriented client–server model
was selected. Rapid Application Development (RAD) tools, with the availability of
visually oriented development tools, fit well with the CDS architecture. Most
importantly RAD could complement existing legacy systems while providing quick
prototype development with code reuse, which we found to be the most signifi-
cant element to successful system development.

In contrast to CATPA, the second generation CDS is based on client–server
architecture. In the client–server configuration, the entire software application
(CDS) resides on the client workstation computers, and the data management is
located on a remote server/host computer. The CDS program communicates with
the server via commands using Structured Query Language (SQL). The server
then responds with the data requested in the query.

Client–server computing is the logical extension of the modular programming
design of CDS. A fundamental assumption in modular programming is that the
separation of a large piece of software into its constituent parts (i.e. modules)
creates the opportunity for easier development and better maintenance. Client–
server computing takes this a step further by recognising that those modules need
not all be executed within the same memory space. With this architecture, the
querying module becomes the client (that which requests a service) and the
responding module becomes the server (that which provides the service).

In both file and client–server the database resides on the server. However, the
significant distinction between file and client–server database is that in a client–server
database there is also intelligent processing at the server level. The server-side
intelligence resides on the server database in stored procedures. A stored procedure is a group of code statements, named and executed as a unit, that are maintained on the server. The client (CDS program) invokes the stored procedure by sending only the name of the procedure across the network to the database server. All processing is executed on the server, which then returns the needed results to the client. Stored procedures are maintained in a precompiled state, so that the server doesn’t spend time compiling code when a request is made. Consequently the entire CDS system is much faster and more efficient that the first generation CATPA program.

Microsoft ActiveX™ Data Objects (ADO) enables the CDS client application to access and manipulate data from a variety of sources. Its primary benefits are ease of use, high speed and low memory requirements. ADO supports key features for building client–server and Web-based applications. The combination of Delphi’s object oriented development environment and the Microsoft SQL Server database enables CDS to respond faster to system changes than the previous CATPA system.

Security
In order to access CDS data, the user must pass through three levels of security. The first level is authentication. Through the Windows operating system the user enters a login to initially gain access to the system. The second level of security is database permission validation and is handled through Microsoft SQL Server when the user launches CDS. In this stage, CDS transparently validates a second login, SQL Server uses this login to determine which databases and tables the user has rights to access and utilise. The third level of security is application permission validation and is handled by CDS. This third login is used to determine which practices and menu items the user has permission to access. If the user does not have a required permission, that practice or menu item will not appear in the user’s interface.

Reliability
SQL Server also uses transaction logging, which refers to maintaining a log of every transaction before a database modification is executed. If a disruption occurs during the operation (e.g. a power failure) the database uses the log to revert back to its last consistent state of operation.

CDS employs a straightforward Windows-based design, with on-screen help and point and click capability that guides the user through the treatment planning process. It allows the user to choose from a range of treatment foci, measurable treatment objectives and available treatment activities. Examples of the user interface are provided in Figures 1 and 2. Figure 1 depicts the initial user interface screen, which allows the user to select from among patient locator, treatment protocol (descriptions of treatment activities) and treatment assignment functions, through their corresponding icons. Figure 2 depicts the screen
used to assign specific treatment activities for a particular patient, based on the domains of functional skill that have been identified as the foci of treatment for the individual. The “Current Activities” listing in the lower right corner shows all treatment activities currently assigned to the patient. The tabs running across the middle of the page indicate the underlying screens for managing the various parts of the treatment plan, including the participants, discharge plan, plan history and so on. Clicking on any of these tabs brings up the corresponding screen for data entry or review for that section. The content for these sections of the treatment plan are described in more detail below.
CDS does not have a ceiling on the number of users; it is limited only by the hardware and the capacity of SQL Server. Microsoft indicates that SQL Server can handle over 4,000 concurrent users generating up to 18,000,000 database queries per day.

RESULTS

Team Functioning
Considerable progress has been made at ASH in defining and shaping effective team functioning through the implementation of a computer-assisted treatment plan (CATPA and CDS). Standardised assessment instruments, including the Atascadero Skills Profile (ASP) and the Psychiatric Medication Review Instrument (PMRI), are now utilised throughout the facility7. These measures directly reflect the psychiatric rehabilitation emphasis on both functional skills and psychiatric symptoms respectively. They provide a common, clearly defined language for the team to communicate patient needs and treatment goals. They also provide electronically accessible clinical data for measuring progress toward these goals.

The treatment planning process, especially as manifested in the treatment team conference, is also clearly structured and guided by CDS. A sequence of explicit steps are required for the team to proceed through the evaluation of the patient’s current status as measured by the ASP and PMRI. A set of decision-making standards are defined to prioritise and assign relevant treatment activities. Treatment planning decisions are made in relation to a clearly stated discharge goal for each patient. In this way the treatment plan is highly individualised, reviewed regularly and modified over time as the needs and condition of the patient change.

Meeting Accreditation Standards
The content and format of the written CDS treatment plan were designed to meet a variety of accreditation standards. Altogether, the procedures, data and documentation associated with CDS meet or help to meet over thirty standards set forth by the Joint Commission for the Accreditation of Healthcare Organizations, (JCAHO)8.

CDS plays a primary role in meeting standards concerning the assessment of patients. Specifically, these standards state that staff members integrate the information from various assessments of the patient to identify and assign priorities to his or her care needs, and that staff members base care decisions on the identified patient needs and care priorities. Prior to the implementation of the first generation CATPA and the ASP, a consistent criticism of the local assessment and treatment planning process by outside surveyors was the lack of integration of the independently conducted and discipline-specific assessments completed by clinicians, and the lack of correspondence between assessment findings and treatment planning decisions. By consistently focusing assessments on specific areas of
functional skill, and assigning treatment based explicitly on the prioritisation of assessed needs, these criticisms have been effectively resolved through the implementation of CATPA and subsequently CDS.

Other standards require that the patient’s progress is periodically evaluated against care goals and the plan of care, and that the plan or goals are revised as indicated. This standard is now more uniformly addressed in the treatment planning process. Whereas there has long been a mechanism for reviewing the patients’ clinical condition at regular intervals, there was no standardised method of clearly identifying dispositionally relevant treatment goals and evaluating patient progress towards these goals in a consistent manner. The treatment plan now requires identification of the anticipated discharge destination at the time of admission. Treatment activities are assigned as they directly relate to the assessed symptoms and skill deficits that pose impediments to this discharge goal. As the patient progresses through his course of treatment, his current status is evaluated against the relevant discharge criteria, and the treatment plan is modified accordingly.

Standards concerning the continuum of care state that appropriate information related to the care and services provided is exchanged when a patient is accepted, referred, transferred, discontinued service or discharged to receive further care or services. Before the assessment and treatment planning process were sufficiently standardised, there was often little continuity of care when a patient was transferred from one treatment unit to another. A different treatment team was likely to have a different orientation to conceptualising patient need and therefore different treatment priorities. Further, there was no uniform way to link assessment findings and treatment to the requirements of a patient’s anticipated discharge environment. Therefore, a patient’s progress toward discharge could take a variety of paths depending upon the various treatment teams whose care he came under during the course of his hospitalisation.

These variations have been reduced under the CATPA and CDS systems. With a clearly identified discharge goal and a standardised assessment framework directly related to treatment planning decisions, teams utilise a more similar process for planning and delivering clinical care. Treatment activity protocols have also been standardised and are subject to review and approval by clinical management staff. The focus and process of treatment activities are now also more consistent across the facility.

Performance on several standards related to the management of information have been significantly improved by the implementation of the CATPA and CDS systems. These include standards that state that the format and methods for disseminating data and information are standardised whenever possible. Key aspects of the interdisciplinary assessment and treatment planning process are now standardised, including the language used and the operational definitions of the clinical measures associated with this process. The written treatment plan itself is more uniform than the previously free-form narration that was dictated by various
clinicians. Aggregate data derived from CATPA/CDS are organised and disseminated quarterly in a standardised format to all treatment programmes to allow for programme evaluation and development.

Information management standards also require that the medical record contains sufficient information to identify the patient, support the diagnosis, justify the treatment, document the course and results, and promote continuity of care among healthcare providers. These requirements are now consistently met through the design and content of the CATPA/CDS treatment plan. Clinical decisions from the treatment team are combined with computerised patient data so that each written treatment plan now includes the designated information.

Finally, standards require that the hospital collects and aggregates data and information to support care, service delivery and operations. This function has been substantially advanced by the CATPA/CDS systems. There are now standardised data available on the level of skill functioning for each of the approximately 1,100 patients in residence every quarter, along with forensic, demographic and treatment delivery data. These data are used to evaluate the adequacy of current service delivery in comparison to assessed patient need. These data can be examined at a variety of levels, from the individual patient, to the level of a specific treatment unit (40 to 50 patients), a treatment programme (three to four units, or 150 to 200 patients) or the entire facility.

An example of performance improvement made possible by the databases created through CDS is the examination of patient need in relationship to treatment services delivered. Table 1 represents the breakdown of patient ratings for one residential treatment programme on various skill domains assessed by the interdisciplinary teams. By showing the number of patients rated (i.e. the number for whom this area of skills functioning is or has been a deficit), and the number of patients in low, medium and high ranges of functioning, it is possible to observe the extent of patient need for services in each area of functioning.

Table 1. Breakdown of patient skill ratings for one residential treatment programme of 175 patients

<table>
<thead>
<tr>
<th>Skill Domain</th>
<th>Number Rated</th>
<th>Low Skills</th>
<th>Medium Skills</th>
<th>High Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptom Management</td>
<td>173</td>
<td>69</td>
<td>77</td>
<td>27</td>
</tr>
<tr>
<td>Medication Management</td>
<td>175</td>
<td>41</td>
<td>71</td>
<td>63</td>
</tr>
<tr>
<td>Neurocognitive Functioning</td>
<td>50</td>
<td>14</td>
<td>24</td>
<td>12</td>
</tr>
<tr>
<td>Assaultiveness Prevention</td>
<td>151</td>
<td>87</td>
<td>56</td>
<td>8</td>
</tr>
<tr>
<td>Suicide/Self Harm Prevention</td>
<td>122</td>
<td>62</td>
<td>47</td>
<td>13</td>
</tr>
<tr>
<td>Substance Abuse Prevention</td>
<td>160</td>
<td>97</td>
<td>51</td>
<td>12</td>
</tr>
<tr>
<td>Interpersonal Skills</td>
<td>174</td>
<td>31</td>
<td>76</td>
<td>67</td>
</tr>
<tr>
<td>Self Care Skills</td>
<td>174</td>
<td>25</td>
<td>73</td>
<td>76</td>
</tr>
<tr>
<td>Leisure and Recreation Skills</td>
<td>162</td>
<td>29</td>
<td>91</td>
<td>42</td>
</tr>
<tr>
<td>Job Skills</td>
<td>148</td>
<td>68</td>
<td>47</td>
<td>33</td>
</tr>
</tbody>
</table>
This information can then be compared to the current level of service delivery in each area. Table 2 presents data from this same treatment programme on the number of treatment groups offered and the number of patients participating per quarter in several skill areas that are considered particularly relevant for a patient’s readiness for discharge into the community. The availability of this data supported programme development efforts to increase the treatment services delivered in these areas. T-tests conducted to compare the values for 1996 and 1999 indicated that the number of groups offered and number of patients participating increased significantly following the implementation of computer-assisted treatment planning (t values of 3.25 to 6.72; p < .01 for all comparisons except number of Suicide/Self Harm Prevention groups, where p < .05).

Table 2. Change in group treatment delivery per quarter on one treatment programme following implementation of computer-assisted treatment planning

<table>
<thead>
<tr>
<th>Treatment Activity</th>
<th>1996 Mean</th>
<th>1999 Mean</th>
<th>% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptom Management Groups</td>
<td>3.25</td>
<td>8.75</td>
<td>169%*</td>
</tr>
<tr>
<td>Patients in Symptom Management Groups</td>
<td>29.25</td>
<td>68.75</td>
<td>135%*</td>
</tr>
<tr>
<td>Assault Prevention Groups</td>
<td>2.75</td>
<td>6.50</td>
<td>136%*</td>
</tr>
<tr>
<td>Patients in Assault Prevention Groups</td>
<td>20.50</td>
<td>56.50</td>
<td>176%*</td>
</tr>
<tr>
<td>Suicide/Depression Management Groups</td>
<td>1.50</td>
<td>3.75</td>
<td>150%**</td>
</tr>
<tr>
<td>Patients in Suicide/Depression Groups</td>
<td>11.00</td>
<td>41.00</td>
<td>273%*</td>
</tr>
</tbody>
</table>

* p < .01  
** p < .05

Format and Content of CATPA Treatment Plan

Each treatment plan report includes the following 10 sections:

1. **Participants**: Identifies those individuals who developed the plan. Included are the names of the interdisciplinary team members, the patient and all additional persons participating in the conference (e.g. family members, consultants, etc.).

2. **Identifying Patient Data**: Contains routine patient identification information, and includes the patient’s reason for admission. A brief description of the offence or alleged offence that resulted in the patient’s incarceration and/or hospitalisation is available under the subheading: “Circumstances Preceding Admission”. This section also includes information on the patient’s level of access to various parts of the facility, his nursing acuity level and other identifying information desired by the team.

3. **Psychiatric Diagnosis**: Provides the current diagnosis as last designated by the treating psychiatrist.

4. **Alerts**: Identifies a patient’s behavioural and/or physical conditions that might pose a significant risk to the patient, environment or others. This section
also includes a security risk assessment, that reflects the patient’s escape risk as measured by a standardised evaluation.

5. Discharge Goal: Reflects the patient’s anticipated discharge environment, as identified by the team. A summary of the patient’s progress toward discharge requirements is further addressed in Section 10 of the plan.

6. Patient Strengths: Identifies ASP items on which the patient has been rated as displaying a high level of functional skill.

7. Impediments to Discharge: Team members integrate assessment information and identify treatment priorities through the scoring of the PMRI and the ASP. This section includes a summary of psychiatric symptoms, reflecting the patient’s psychiatric symptom profile as determined by the psychiatrist’s scoring of the PMRI. Symptom severity levels are behaviourally defined using a standardised list of scoring descriptors. This is followed by a summary of skills deficits, reflecting the patient’s current level of functional skill as determined through the treatment team’s assessment of the patient and scoring of the ASP. This section displays ASP data and the treatment status of each skill domain. Review of this section provides a quick summary of each area that is currently a focus of treatment and the patient’s relative level of functioning.

8. Skills Deficits and Treatment Interventions: This section lists the specific treatment activities assigned for the patient, based on identified patient needs and dispositional priorities. Each skill area designated as a focus of treatment is listed (e.g. deficit in preventing substance abuse), along with a description of the patient’s current level of skill functioning in that area. This description is composed by the computer program based on statements associated with the specific scores for each ASP item.

This description is followed by the titles for each treatment activity assigned by the team as appropriate to the patient’s needs. Each treatment activity has a corresponding protocol contained in a formulary which describes the goals, methods and materials associated with the activity. The goal of each assigned treatment activity as described in the protocol is listed in the treatment plan.

9. Areas Currently Not a Focus of Treatment: This section identifies skill deficits that the team has determined should not be addressed as a current focus of treatment. Each is followed by a reason why the deficit is not a focus of treatment, such as “not a barrier to discharge” or “patient is not stable enough to participate in treatment”.

10. Narrative Summary: This section is dictated by the clinician serving as case manager and provides the treatment team the opportunity to succinctly summarise the patient’s course of treatment since the last evaluation. The areas routinely included are:

- Physical/Medical Status Affecting Psychiatric Treatment Plan
- Medications and Response to Medications
- Barriers to Learning
DISCUSSION

The effort and resources required to implement a system of computer-assisted treatment planning have been considerable, requiring hundreds of hours of staff time and hundreds of thousands of dollars in IT infrastructure, such as the development of a facility-wide LAN. One unexpected aspect of the development process was the magnitude of change required to sufficiently standardise the assessment measures and business rules by which treatment teams operate. This process involved the training of each treatment team in the scoring of the underlying instruments, training in the necessary team process and training for designated team recorders in the use of the application software. This training was routinely followed by periods of observation and consultation by the trainers regarding the subsequent team process. Programme managers and hospital administrators (e.g. the Medical Director) were involved as necessary to encourage and ensure adequate compliance with procedures.

Only when these steps had been accomplished could the computer automation components of the system be brought into play. It required a period of approximately two years to sufficiently convince a diverse clinical staff of the feasibility of this system and provide adequate training to enable its use. This was done through a series of presentations and training events ranging from hospital-wide informal sessions to team specific consultations. This period was marked by vigorous debates of the clinical underpinnings and procedural specifications of the system.

In the end, however, successful implementation has brought several distinct advantages to the hospital’s clinical and management functions. Standardised documentation of treatment assignment based on clearly relevant assessment data is produced. Electronically accessible aggregate data are available on useful clinical indices. These data can be used to monitor the treatment response of an individual patient or evaluate the adequacy of treatment opportunities across the facility. The application of a clear conceptual framework and common clinical language has served to focus staff’s attention on the complex task of delivering psychiatric care by an interdisciplinary treatment team.

REFERENCES