Clinical Information Systems

Scope:

All clinical programs, clinical program staff and patients within the Organization.

Purpose:

To ensure clinical information is gathered, stored and is made retrievable in a secure, user oriented manner.

The Organization has defined standardized data sets for the majority of clinical information. There are two primary repositories for this information, TIER® for the vast majority of all clinical information that would traditionally be found in a patient's medical record. The clinical information that is not contained in TIER® is that information that is presented to the Organization such as the immunization records of adolescent patients, copies of medical information received from other providers, hospitals, treatment centers, etc., release of information and similar documents for which an actual signature is required and those clinical subsystems that have yet to be converted to TIER®. These documents are stored by scanning the document(s) into the HMS Monitor® Optical Storage System. A current patient record is a combination of the TIER® record plus the few scanned documents that are located in the HMS Monitor® system.

Presently, the entire repository of archived paper charts is being scanned in to the HMS Monitor® system. It is estimated that this process will be complete by the end of 2003. At present, paper charts prior to 2000 may or may not be in the HMS Monitor® system. The Clinical staff currently checks the HMS Monitor® system for archived charts. If the record they are looking for is not available online, they are to contact the Medical Records Office. By the end of this project, all paper records will have been converted.

As stated above, the vast majority of clinical information is stored in the TIER® system. This system presents the user with a standardized data input model that allows for the analysis and subsequent transmission of information to appropriate users on the Organization's computer network. Although the system utilizes a standardized database for a significant portion of the data, the treatment planning, progress noting and other appropriate sections are narrative by nature and therefore not standardized.

Each patient record is retrievable from any computer on the Organization's network on which the client software has been installed. Security is maintained first by limiting the installation of the client software to those computers that are located in appropriately secure areas. The records are secured by both a network sign on password system and then by a second password secured sign on that is required to access the TIER® client. Once an authorized user has accessed a patient's record, the system checks that user and only allows them access to those areas that have been authorized by the system administrator. Likewise, entry into the record is restricted to those individuals who have been so authorized. Each entry is electronically signed based on the user sign on record.

In a similar manner, the HMS Monitor® viewer client has its own password secured sign on requirement. Accesses to sections of the patient record are controlled by this sign on

credential. Only those individuals who are authorized by the system administrator to access archived records are able to gain access and then only to those sections for which they are authorized.

Each patient that presents for an assessment and/or admission is recorded in a unique record in the TIER® system. From the first contact, a record is built that will be added to as additional information is obtained. The intake and initial chemical dependency assessment data become the first entries in the record of an individual who is admitted to one of the Organization's programs. Subsequent contacts, assessments, admissions, treatment plans, progress notes, etc. continue to be added to the initial information that was obtained during the first contact. Information from contacts prior to the implementation of the TIER® system are available either via the HMS Monitor® viewer or by retrieval of the individual's paper record.

For all non-narrative data, reports can be generated to look for trends, identify patterns and report aggregate results that are used by the Organization as it manages its operation. In addition to various predefined reports, a user based report generator is available to assist user in creating ad hoc reports from the raw data.

Clinical Record Contents:

Each clinical record contains information sufficient to determine the identity of the individual in question, data to support the current diagnoses, data to support the level of treatment being provided, document the course of treatment and the results of said treatment, and information to facilitate the continuity of care post discharge. The following discrete data elements are also present in each clinical record:

- Name of individual, address, date of birth, sex, next of kin, highest educational level achieved, marital status, employment information, name and phone number of any legally authorized representative
- the legal status
- emergency care provided to the individual served before his or her arrival, if any
- documentation and findings of assessments
- a statement of the conclusions or impressions drawn from the medical history and physical examination, when provided
- the diagnosis, diagnostic impression, or condition(s)
- the reason(s) for admission or treatment, care or services
- the goals and objectives of the treatment, care, and services for the individual served
- evidence of known advance directives, when indicated
- evidence of informed consent, when required
- diagnostic and therapeutic orders, if any
- all diagnostic and therapeutic procedures, tests, and results
- documentation of protective services, when provided

- progress notes made by authorized staff that are used as the basis for treatment, care, services and habilitation plan development and review
- all reassessments, when indicated
- relevant observations
- the response to treatment, care, and services provided
- consultation reports
- medication ordered or prescribed
- every dose of medication administered and any adverse drug reaction
- every medication dispensed or prescribed on discharge
- all relevant diagnoses/conditions established during the course of care
- any referrals and communications made to external or internal care providers and to community agencies
- documentation of the individual served and, as appropriate, family involvement in the program
- information on any unusual occurrences, such as:
    - treatment, care, or service complications;
    - accidents or injuries to the individual served;
    - procedures that place the individual served at risk or cause unusual pain;
    - other illnesses or conditions that impact on treatment, care, or services;
    - the death of the individual served;
- documentation of individual served, family or guardian consent for admission, treatment, care, services, evaluation, continuing care
- indications for and episodes of special procedures
- a discharge summary which summarizes the reason for treatment, care, or services; the significant findings; the procedures performed; treatment, care, or services provided; condition on discharge; and any specific instructions given to the individual served and/or family, as appropriate

With regards to records of individuals who are assessed, the facility does not necessarily obtain all such information during the course of an initial chemical dependency assessment.

The clinical information system is designed to allow 24 hour a day access. Therefore, the system is available to clinicians at all times to both enter and retrieve information. In that all information is stored in a single repository (with the exception noted below), the entire record is available to all users authorized to access the record. Therefore, whenever an individual presents for treatment, scheduled or unscheduled, the entire record is available.

The exceptions to the single repository noted above are those documents that originate outside of the Organization and the various releases of information and consents to treatment that require an actual signature. Those documents are retrievable from the HMS Monitor® viewer software that is loaded on all workstations that have TIER® installed. All individuals with access to TIER® have access to the viewer as well. Therefore, all parts of the record are available from all workstations used by the clinical staff.

Although the timeframes for charting various components are located elsewhere, information entered into the clinical information system is available immediately upon entry. With regard to admissions, all releases of information and consents to treatment are scanned immediately after the patient is admitted and are therefore available in the scanned document viewer immediately after the patient is admitted. In general, all information that pertains to current patients receives the highest priority with regards to scanning and is generally available within thirty minutes of being produced.

The system automatically records the individual signed onto the workstation and the time and date of each entry into the clinical record. As stated above, all clinical information, with the exception of those documents that originate outside of the Organization and the various releases of information and consents to treatment that require an actual signature, are available in the clinical information system. Those documents are retrievable from the HMS Monitor® viewer software that is loaded on all workstations that have TIER® installed. All individuals with access to TIER® have access to the viewer as well.

With regard to record retention, authorized users of patient records, time frames for the closing of records, verbal orders, chart reviews, etc., see the relevant sections in the Clinical Information Systems Section, Volume 2 of the Organization's Policy and Procedure Manual.

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