



National Allied Health Casemix Committee

Software Recommendations

for

Allied Health
Management Information Systems

March 1998

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1. Introduction

The need for, and importance of, technology systems which facilitate the collection and application of information is now widely accepted throughout our society. The demands for information in the Healthcare sector range across casemix, best practice, clinical costing and benchmarking at a global level through to management, workload and activity analysis, quality and outcome reporting, and product costing at a department level.

Allied Health departments are commonly technology resource poor. However the demands as listed above have increased the need for quality information systems which can meet standard requirements in an efficient, user-friendly manner.

The National Allied Health Casemix Committee (NAHCC) through its work on the development of National Reference Standards for Allied Health Disciplines realises that one of the main barriers to routine recording of information is the general lack of technology in Allied Health departments. However, it has become apparent that significant activity is taking place at either state or territory, institution or department levels to try to counteract this deficiency and establish information systems which will meet the demands of the modern health care system.

This increase in activity has led to significant duplication of effort as numerous sites try to define their own requirements for an information system.

The goal of this document is to provide a generic list of the key requirements of an Allied Health Information System which can be used as the basis for developing more specific requirements as might be defined by states or territories, institutions or departments.

2. Acknowledgement

The NAHCC wishes to acknowledge that this document is based on the Allied Health Requirement Definition (sic. for a whole of health allied health feeder system) prepared by the South Australian Allied Health Casemix Working Party and the South Australian Health Commission Information Management Division. We thank the Working Party for their willingness to share their document. We believe the broad availability of a generic requirements document will assist in the development and selection of Allied Health Information Systems and minimise the duplication of effort across states or territories, institutions and departments.

3. Summary of Requirements

The Allied Health management information system should provide major functions for patient registration, waiting list and appointment management, clinical interventions, stores, manufacturing, invoicing, discharge management and reporting.

In broad terms, the system should provide:

- sufficient flexibility to allow its implementation across a range of health units of differing sizes and with differing complexities of services, systems and casemix.
- recording of allied health clinical and manufacturing information related to patient care and clinical support.
- interfacing with clinical information, financial and patient management systems.
- interfacing with a data repository system (eg OACIS).
- ability to feed clinical costing data to a clinical costing system (eg Trendstar, Transition etc).
- purchasing, stores, and inventory control functionality or ability to interface to a third party system.
- flexible, efficient reporting system that allows users to set parameters and present data in a variety of formats.

4. Interfaces

The system should have the ability to transfer to a number of clinical and other systems. Data transfer may be uni-directional or bi-directional depending on the nature of the interfaced system.

4.1. Interfaces to Clinical / Information Systems

- 4.1.1. Admissions, Transfers and Separations (ATS) system.
- 4.1.2. Patient Master Index (PMI) system. The proposed system should reference existing patient details held in the PMI system.
- 4.1.3. Outpatient Booking System or Appointment Scheduling System.
- 4.1.4. Invoicing System for patient billing.
- 4.1.5. Supply Systems.
- 4.1.6. Human Resources systems (eg, Employee Master Index, Payroll).
- 4.1.7. Food Services system.
- 4.1.8. The proposed system should select and export data for uploading into clinical costing systems (eg Trendstar®) for clinical costing purposes and the development of clinical pathways.
- 4.1.9. The proposed system should export data to casemix reporting systems if available (eg Casewiz).
- 4.1.10. clinical data repository (eg OACIS®) .
- 4.1.11. Microsoft Office products - link to produce standard letters such as appointments, equipment loan agreements and discharge summaries.
- 4.1.12. Ability to easily interact with portable computers (download and upload information).

4.2. General User Interface Functionality

Interfaces, screen navigation and user interaction should be consistent across all system functions. General functionality should include:

- 4.2.1. graphic user interface (GUI) supporting both keyboard and mouse access to data, and pop-up lists for selection of valid data for data entry.
- 4.2.2. Availability of short cut ('hot') keys, both user definable and vendor supplied.
- 4.2.3. Use of bi-directional scrolling for display and selection of data items.

- 4.2.4. Availability of context sensitive on-line help screens / functions.
- 4.2.5. User configurability of data entry screens and reports for each allied health discipline within a health unit. This includes the ability to modify screen layouts and cursor flow, introduce user defined fields, modify field labels, specify fields as mandatory, switch off unused fields, specify defaults and define help 'windows'.
- 4.2.6. User configurable colour including the ability to distinguish mandatory from optional fields.
- 4.2.7. Data validated against tables on data entry (error trapping).
- 4.2.8. Ability to use code alias values, so that codes can be recorded as per local requirements, but translated into common values for combined reporting or export to clinical costing systems eg Trendstar.
- 4.2.9. User specified reasonableness checking and associated warnings (eg, birth date not in the future, intervention date not prior to referral date, duration of intervention etc.).
- 4.2.10. Different time units may be used within the health unit to record activities (eg, 1 minute, 5 minute, 15 minute etc.). When this occurs, the times may need to be converted to a common base to allow comparisons between departments.
- 4.2.11. User prompted to confirm changes, prior to saving or deleting data from the database.
- 4.2.12. Ability to abort processing in any screen, without processing any data.
- 4.2.13. Ability to undo last transaction and delete any data held within the system, subject to security considerations.
- 4.2.14. Standard use of function keys across the whole product.
- 4.2.15. The entry of codes via the keyboard should be assisted by smart codes, whereby the system offers the first valid code based on what has been entered so far.
- 4.2.16. Capability of utilising technologies such as bar code readers for identification of equipment issued or loaned, patient details and stock control.
- 4.2.17. The system should provide the ability to export data to third party software. This should preferably be done with direct data conversion (eg to existing spreadsheet formats) as well as through ASCII data interchange.
- 4.2.18. System performance should be consistent, regardless of the number of concurrent users on the network or size of the database.
- 4.2.19. Ability to access the system via the network from various locations, including the patient's bedside, outpatient clinic, patient's home and allied health department.

- 4.2.20. The system should provide the ability to easily review and/or update data held within the system.
- 4.2.21. The system should be simple to learn and use.
- 4.2.22. The system should allow easy moving between functions / screens without the need to necessarily navigate menus.

5. Major Functions

5.1. Patient (Episode of Care) Registration

- 5.1.1. The system will be used by different allied health disciplines (such as speech pathology, physiotherapy etc.). The system should allow for each to record information specific to their discipline within the health unit, but share common information (such as patient demographics and codes).
- 5.1.2. The patient registration relates to an episode of care. The system must provide for multiple and concurrent episodes of care which are not necessarily related. It is expected that some of the following will be provided through easy interfaces to the Patient Master Index system and the Admissions Transfers and Separations systems. For sites which do not have these interfaces, all of the following will need to be recorded / available:
- patient name and unique identifier (UR number)
 - patient location (health unit, campus, ward, and room/bed)
 - medical unit, division and clinic
 - patient type (inpatient, outpatient, local outreach, regional outreach etc.)
 - patient insurance status (private hospital, private extras, public, compensable, veteran etc.)
 - patient date of birth, age, nationality and interpreter details
 - client indicator (health unit, community health, education dept, veterans affairs)
 - local doctor
 - date referred and referral source (General Practitioner, self referral etc.)
 - additional referral details (clinical alerts, patient mobility, access considerations)
 - health unit (medical) diagnosis codes
 - allied health discipline (speech pathology, physiotherapy etc.)
 - allied health related medical diagnosis code
 - allied health discipline diagnosis codes
 - allied health discipline outcome targets (multiple)
 - patient address and contact details
 - health unit admission date
 - allied health discipline admission date
 - treatment frequency
 - allied health discipline complexity rating or severity indicator
 - health unit discharge date

- 5.1.3. Some of these details may not be known at the time of patient registration (eg, health unit (medical) diagnosis codes). The system needs to allow data to be added / altered at a later time.
- 5.1.4. For compensable patients, need to record additional information including:
- claim number
 - solicitor
 - date of injury
 - case worker
 - employer
- 5.1.5. Entry of a UR number will generally only be allowed if it exists in the PMI system. However, where there is no PMI system, or in exceptional circumstances, restricted entry of a new UR number should be allowed.
- 5.1.6. Ability to link a patient episode of care to an inpatient DRG (via the medical diagnosis)
- 5.1.7. Ability to record Allied Health discipline diagnosis codes which are structured and multilevel, based on discipline specific diagnostic classification systems.
- 5.1.8. Flexibility to create additional data fields and associated formats as required.
- 5.1.9. Ability to receive referrals electronically.
- 5.1.10. Ability to use patient aliases (from the PMI system if the interface exists) and link to the patient UR number. Ideally records stored under the patient alias should be able to be changed and stored under the correct patient UR number.
- 5.1.11. Ability to review the current patients by referral source.
- 5.1.12. Ability to review patient history during admission. Details should include:
- patient name and unique identifier (patient UR number)
 - allied health discipline (speech pathology, physiotherapy etc.)
 - date last seen by allied health discipline and the clinician seen
 - last health unit discharge date
 - last allied health discipline discharge date
- 5.1.13. The UR number is the unique identifier for a patient. The system should ensure that each patient has only one UR number and each UR number corresponds to only one patient.
- 5.1.14. The system must cater for dates beyond the year 2000.

5.2. Waiting List Management

- 5.2.1. Ability to assign a priority and a clinician to a newly referred patient.

5.2.2. Ability to operate multiple waiting lists (eg, prior to first assessment, and then prior to treatment). Details held should include:

- patient name and unique identifier (patient UR number)
- allied health discipline (speech pathology, physiotherapy etc.)
- date put on waiting list
- date referred and referral source (GP, medical unit, self etc.)
- assigned priority
- assigned clinician
- description of condition
- allied health discipline diagnosis code
- risk factor
- patient location (ward, room/bed, medical unit, clinic etc)
- details of previously offered appointments and whether taken
- details of previous non attendance

5.2.3. Identify next patient to receive an appointment.

5.3. Appointment Management

5.3.1. Schedule appointments based on the waiting list.

5.3.2. Ability to make appointments for both individuals and groups, either from the waiting list or directly.

5.3.3. Ability to cater for overlapping appointments.

5.3.4. Ability to easily reschedule or cancel an appointment, or assign to another clinician.

5.3.5. Ability to record patient attendance and categorisation of non attendance such as cancelled or did not show.

5.3.6. Ability to review a summary of a patient's attendance history.

5.3.7. Ability to integrate appointments with other resource bookings such as rooms or equipment.

5.4. Clinical Interventions

5.4.1. The system should allow for information to be held for each clinical intervention as defined in the Australian Allied Health Classification System: Version One. These interventions can be individual, group or non patient specific (such as primary health care). The interventions which are patient specific should be linked to the appropriate episode of care.

5.4.1.1. Multiple clinicians (from the same or different discipline) can treat a patient during one intervention, and over the episode of care.

5.4.1.2. The patient type may change over the episode of care (inpatient, outpatient, inpatient etc.). The patient type should be recorded as at the time of each intervention and not be overwritten.

- 5.4.1.3. Interventions need to be classified to be included for reporting to the Health Departments for reimbursement (occasions of service).
 - 5.4.1.4. All interventions need to be classified by allocating one or more intervention codes (based on the Australian Allied Health Classification System: Version 1) with time specified for each activity or the whole intervention. These should include all patient attributable time.
 - 5.4.1.5. The use of activity codes to a certain level should be standard, first at a system level, then at the health unit level, but further breakdown of codes specific to an allied health discipline should be allowed.
 - 5.4.1.6. Ability for activities, treatments and outcomes to be recorded individually against the various patient diagnosis codes.
 - 5.4.1.7. A warning should be displayed if details have already been entered for the patient on the specified day or if details are entered for a patient that has been discharged (the date last discharged should be shown). Entry should still be allowed if the user chooses to ignore the warning.
 - 5.4.1.8. Ability to record multiple interventions for a patient for a day. This should be able to be done with only minimal additional effort to single intervention data entry.
 - 5.4.1.9. The entry of intervention data should be a simple process taking minimal time.
 - 5.4.1.10. Intervention data should not be able to be entered for a future date.
 - 5.4.1.11. Interventions must be able to be linked to the appropriate episode of care (ie, patient registration). Allowance needs to be made for multiple episodes of care to be active at any one time.
- 5.4.2. Record details of group interventions. Groups can be conducted by one or more clinicians from one or more allied health disciplines and can comprise multiple patient types (inpatient, outpatient). Details which need to be recorded include:
- the group identifier and name
 - either the UR numbers of patients attending the group, or just the number of people attending.
 - clinician(s)
 - date of the group intervention
 - intervention category for statistics and associated quantity (number of visits, new/review, inpatient/outpatient etc.)
 - activity codes
 - durations
 - potentially any of the information required for individual intervention recording.

- 5.4.3. Record details of individual interventions. Details which need to be provided for include:
- patient name and unique identifier (UR number)
 - patient type (inpatient, outpatient, outreach etc.)
 - date intervention occurred
 - location where the intervention occurred (health unit, campus, clinic and ward)
 - assigned medical unit
 - intervention category for statistics and associated quantity (number of visits, new/review, inpatient/outpatient etc.)
 - clinician
 - activity codes
 - duration of interventions during the day
 - health unit and allied health discipline diagnosis codes
 - allied health discipline complexity rating
 - treatments
 - associated job number (for manufacturing)
 - health unit project or program
 - outcomes or health scores (allow multiple outcomes per diagnosis)
 - equipment issued or loaned
 - general text for casenotes
 - height, weight and date measured
- 5.4.4. The patient type (inpatient, outpatient etc.) should be initially determined through the interface to the ATS system.
- 5.4.5. Ability to easily load data from the appointment module to facilitate simpler data entry.
- 5.4.6. Ability to review latest intervention data during data entry and use selected fields as defaults if required (eg, clinician, activity code).
- 5.4.7. Ability to review a summary of data entered for a particular day or week (on the screen or hard copy) to enable fast and easy data verification.
- 5.4.8. Ability to review a patient's complete intervention history including all allied health disciplines and all clinicians.
- 5.4.9. For group interventions, require ability to optionally split the total group time against individual UR numbers. Consideration will need to be given to the time units being used.
- 5.4.10. For group interventions, require ability to record all clinicians treating the group, and the associated UR numbers for each clinician.
- 5.4.11. The system should allow for the possible interfacing to computerised patient medical record files in the future.
- 5.4.12. Ability to link to Microsoft Office products for maintenance of allied health discipline casenotes, prepare equipment loan agreements etc.
- 5.4.13. The system should display corresponding outcome targets when entering intervention outcomes. The outcome target field should have some allowance for entering standard descriptors and free text.

5.5. Equipment Issue / Loan

- 5.5.1. Record a register of equipment and consumable items which may be issued or loaned to patients and the cost of the item. Various costs should be allowed such as issue price and hire charge. Warranty and service dates should also be included. Some of these equipment items may be controlled by the 'stores' function.
- 5.5.2. Record the details of equipment and consumable items issued to a patient. Details which need to be recorded include:
 - patient name and unique identifier (patient UR number)
 - date issue or loan occurred
 - clinician
 - item issued or loaned
 - quantity issued or loaned
 - referral date
 - referral source
- 5.5.3. For loaned equipment, optionally record the due date for return, the actual date of return and generate reports periodically to show overdue equipment requiring follow-up.
- 5.5.4. Reports should be available for equipment returns, including overdue loans and equipment loaned by recently deceased patients.
- 5.5.5. Barcoding ability should be available for registering, issuing, loaning and returning equipment.

5.6. Clinical Services Management

- 5.6.1. Ability to categorise details of time spent (based on the Australian Allied Health Classification: Version 1).
- 5.6.2. The use of activity codes to a certain level should be standard across the health unit, but further breakdown of codes specific to an allied health discipline should be allowed.
- 5.6.3. Ability to easily enter the same information for a specified time period (eg, annual leave for 2 weeks).
- 5.6.4. Ability to enter planned leave information for a future date.

5.7. Invoicing

- 5.7.1. Ability to record the patient insurance status for each episode of care (public, private hospital, private extras, compensable) and the details of where the invoice is to be sent (eg insurance company etc.)
- 5.7.2. All labour (either by time or number of occasions of service), issue of equipment, consumable items, manufactured products and penalties for overdue loan equipment should be included on invoices.
- 5.7.3. The labour \$ rate to be applied for invoicing is dependent on the patient type.
- 5.7.4. Ability to record payment against an invoice.

5.8. Stores (purchasing and inventory)

- 5.8.1. Barcoding ability should be available across all stores functions.
- 5.8.2. Electronic Data Interchange (EDI) to effect ordering.
- 5.8.3. Automatic faxing of orders to wholesalers / suppliers.
- 5.8.4. Multi-store capability.
- 5.8.5. Functional inventory management of raw materials, components and supplies used in manufacturing, including bills of materials.
- 5.8.6. Ability to produce and customise own catalogue.
- 5.8.7. Ability to record and make payment for orders received.
- 5.8.8. General Store functions
These should include at a minimum:
 - 5.8.8.1. Purchase order and receiving functions including back order management.
 - 5.8.8.2. Maintain supplier information.
 - 5.8.8.3. Stock issues and returns.
 - 5.8.8.4. Stocktake (both annual and cyclic facilities).
 - 5.8.8.5. Minimum reorder levels and associated details such as lead time, reorder quantity, standard pack, unit of purchase, unit of issue, conversion factor, brand and part number, supplier.
 - 5.8.8.6. A range of costing methods such as average, first in first out (FIFO) and latest.

5.8.8.7. Ability to track stock at different locations (either within a storeroom or across storerooms).

5.8.8.8. Management of expired / damaged stock

5.8.9. Consignment stock from vendor

5.8.10. Vendor held stock

5.8.11. Availability of comments / user field

5.9. Manufacturing

As a minimum, this should include:

- Details of bills of materials for manufactured products.
- Associated inventory control for the manufactured products, raw materials, components and supplies.
- Ability to cost and invoice all manufactured products to patients. This should include all labour (clinical and technical), materials, components, supplies and user defined loadings.

5.10. Patient Discharge

5.10.1. The health unit discharge date, if applicable, should be obtained from the interface to the ATS system.

5.10.2. Allied health discipline patients need to be discharged at the completion of their episode of care. The discharge recording function can take place at the time the patient is actually discharged, or retrospectively when multiple patients are recorded at the same time. Details which might be recorded include:

- patient name and unique identifier (UR number)
- date discharged from allied health discipline
- destination (nursing home, rehabilitation service etc.)
- outcomes or health scores
- height, weight & date measured

5.10.3. Allied health discharge should allow for recording of outcomes against the discipline diagnosis codes. Provision should be made to record multiple outcomes per diagnosis code.

5.10.4. Allow a batch facility to discharge patients who have not been treated by the allied health discipline for a specified period of time. This would require an indicator to be set to allow these records to be reviewed and updated at a later date if required.

5.11. Miscellaneous

- 5.11.1. Maintain a register of allied health professionals (eg, name, profession etc) who provide services to patients, including professionals external to the health unit. External professionals may need to be excluded from costing and reporting.
- 5.11.2. Ability to record a complete history of hourly pay rates and classifications for a clinician (ie past and current rates). Allowance should be made to separately record multiple on-cost amounts or percentages.
- 5.11.3. Ability to record multiple clinician labour rates based on patient type and patient insurance status.
- 5.11.4. Ability to record the time spent by the clinician at work and the time paid for a given day.
- 5.11.5. Ability to group data for individual allied health discipline reporting requirements (eg using the same activity codes, but reorganising the structure to form a new reporting hierarchy, or grouping clinicians into work teams).
- 5.11.6. Ability to record miscellaneous expenditure against patients to provide complete job costing details.
- 5.11.7. Ability to allocate costs to all labour- and goods- related records (including interventions, clinical support etc).
- 5.11.8. Ability to record overhead cost details at the allied health discipline level as well as through the clinician hourly rate.

5.12. Reporting

Required reporting features should include:

- flexibility and ease-of-use;
- ability to report to screen, printer or file in a format suitable for loading into another product such as Access or Excel;
- printing in background while other functions are operational;
- ability to schedule and run reports in batch mode;
- ability to select and report effectively on all stored data;
- ability to combine allied health databases and copies of non-allied health clinical databases for reports (eg PMI data such as age, post code)
- computation, summing, sorting and comprehensive statistical analysis should be supported;
- ability to support different printers (laser, dot matrix);
- ability to show trends or patterns in the data;
- full range of boolean operations for parameter selection;
- ability to abort the report at any time;
- ability to use data ranges, lists or multiple values in parameter selection;
- ability to output in tabular or a range of graphical formats;
- ability for report definitions to be saved and rerun by any user, subject to security;
- ability for users to easily define and run their own reports or queries on demand;
- ability to show multiple sets of data for comparison (such as current month as well as last 11 months);
- ability to use standard field names on the report, regardless of screen literal customisation, to allow comparisons between allied health disciplines;
- ability to link to Microsoft Office products for further processing of reports or annotations.



6. Documentation

6.1. User Documentation.

- 6.1.1. End User documentation should be provided at installation.
- 6.1.2. End User documentation should be provided for all patches and upgrades.

6.2. System Documentation

- 6.2.1. System and technical documentation should be provided at installation.
- 6.2.2. System and technical documentation should be provided for all patches and upgrades.

6.3. Report Writer

- 6.3.1. User documentation for all report writers / facilities should be provided.

6.4. On-line documentation

- 6.4.1. On-line documentation as a help resource should be available within the system and should not interfere with normal processing.

6.5. Source code availability on site.

- 6.5.1. Source code should be available, either on-site or through a negotiated ESCROW agreement.

7. Security

Security should be provided at a number of levels to ensure optimal security of all confidential information.

7.1. Access Codes and Passwords

7.1.1. The system should limit access to users with valid access codes and passwords.

7.1.2. Ability to limit access to unattended workstations to valid users.

7.2. Task oriented.

7.2.1. Security should be provided at task level (eg patient registration, a specific report) and be specified and maintained by the site administrator.

7.3. Group orientation.

7.3.1. The system should support group security (eg speech pathology only).

7.4. Automatic logoff.

7.4.1. The system should support automatic logoff back to a password entry screen after a specifiable time of inactivity.

7.5. Audit of log-on attempts.

7.5.1. An audit of all log-on attempts should be maintained.

7.6. Full audit trail

7.6.1. There should be the ability to record a full audit trail, which is maintained in the background and is secure.

7.6.2. A minimum audit trail should be specified where performance or storage considerations preclude the collection of a full audit trail.

7.7. Ability to report/interrogate audit information.

- 7.7.1. The audit trail should be available to appropriate personnel for reporting and audit purposes.
- 7.7.2. The audit trail should have appropriate security measures to ensure intentional / unintentional corruption or modification does not occur.
- 7.7.3. The system should allow the audit trail to be interrogated without disruption to other processes.

8. Technical

8.1. Operating system

- 8.1.1. Preference will be given to products which operate in UNIX or Windows NT environments. Other operating systems such as Novell are currently used but will be gradually phased out.

8.2. Network

- 8.2.1. TCP/IP communication protocols.

8.3. Database

- 8.3.1. General purpose relational database management system suitable for querying on large multi-patient data sets using SQL.
- 8.3.2. Provide record locking / database concurrency control.

8.4. Format for transferred data

- 8.4.1. Interfaces to corporate systems must be HL7 compliant.

8.5. Architecture

- 8.5.1. Open system, transportable to a number of different platforms and allowing connectivity with other platforms.
- 8.5.2. The system should have the ability to expand or contract without major system reconfiguration.
- 8.5.3. Each module should be available from all connected workstations subject to appropriate security controls.
- 8.5.4. The system should allow full access to underlying computer / workstation resources.

- 8.5.5. The system should simultaneously provide a 'live' and 'test' environment. These should have appropriate security measures to guarantee system safety and integrity.
- 8.5.6. All workstations should be capable of independent and simultaneous function.
- 8.5.7. Individual workstation failure should not result in system-wide failure.

8.6. Hardware

- 8.6.1. Hardware platforms must comply with the defined Standards on Information Technology.

8.7. Software Configuration

- 8.7.1. The system should allow a sufficient level of software configuration to allow adaptation to requirements of different health units.
- 8.7.2. Local configuration should be possible by suitably trained health unit / allied health personnel.
- 8.7.3. Extent of local configuration should be stated.

9. Implementation

9.1. Implementation Plan

- 9.1.1. The vendor, project manager and user representative(s) should jointly develop and agree to a detailed implementation plan.
- 9.1.2. The implementation plan should detail expected commitment and responsibilities from all bound parties.

9.2. Data take-up

- 9.2.1. The implementation should provide data take-up / conversion strategies.

9.3. Risk Management

- 9.3.1. The implementation plan should include a risk assessment and proposed management.

9.4. Time Frame

- 9.4.1. The implementation plan will contain an agreed time-frame for system implementation. The vendor will be bound to agreed penalties should implementation milestones be delayed past the agreed time-frame(s).
- 9.4.2. Variations to time frames should be agreed to by all parties.

9.5. Additional site licenses over implementation costs

- 9.5.1. The vendor must state the need to purchase additional licenses for third party applications, above system costs.

9.6. Training

- 9.6.1. Appropriate training and / or support should be provided for project staff.
- 9.6.2. The vendor should provide user and technical training.
- 9.6.3. A training plan should be prepared based on a needs analysis.
- 9.6.4. Training should include a 'test' environment prior to live operation.
- 9.6.5. Evaluation of the training process should occur, with appropriate corrective action undertaken.
- 9.6.6. Training should be provided by appropriate means with each system modification.
- 9.6.7. All instances of training should be supported with appropriate documentation.

10. Support / Backup

10.1. Support

- 10.1.1. Details of support / backup should be clearly documented. This should include expectations of users and local information technology staff.
- 10.1.2. There should be a guaranteed Help Desk response time.
- 10.1.3. There should be a mechanism for software defect reporting.
- 10.1.4. There should be a mechanism for tracking software defect reports.
- 10.1.5. There should be a guaranteed response time for different categories of software defects.

10.2. Enhancements

- 10.2.1. A structured process should be provided for requesting enhancements.
- 10.2.2. A structured process should be provided for investigating future strategies / needs.
- 10.2.3. All enhancements / upgrades should be accompanied by appropriate documentation and training (if appropriate).

10.3. Backup

- 10.3.1. A simple and efficient means for backing up data should be provided (preferably automatically).
- 10.3.2. Continual access to the booking system in the event of a hardware failure is required.
- 10.3.3. A structured process should be provided for database purging and archiving.
- 10.3.4. A simple and efficient means for restoring archived data should be provided.

10.4. Recovery from hardware failure

- 10.4.1. The system should be able to recover data entered since the last backup in the event of a hardware failure.

11. User groups

11.1. Provide facility for user group

The vendor should facilitate a user group that has equal representation from all health units.

12. Glossary

Activity Code is a code which classifies the activity performed by the clinician (eg, treatment, assessment, planning & preparation, education etc). This includes both patient related and non patient related activities.

Allied Health Discipline is one of a number of professions under the umbrella of allied health. These include speech pathology, occupational therapy, physiotherapy, social work, audiology, podiatry, orthotics, nutrition and dietetics, and clinical psychology.

Allied Health Discipline Admission Date is the date that a patient is admitted to the allied health discipline for treatment. This applies to all patients and signals the start of an episode of care. This date will often vary from the health unit admission date because allied health treatment does not always occur on day one of a patients stay in the health unit.

Allied Health Discipline Complexity Rating is an arbitrary rating for the complexity of an intervention or episode of care.

Allied Health Discipline Diagnosis indicates the reason the patient requires treatment from the particular allied health discipline. This may or may not directly correspond with the health unit (medical) diagnosis.

Allied Health Discipline Discharge Date is the date signalling the end of treatment for this episode of care for a particular allied health discipline. This date may or may not correspond with the Health Unit Discharge Date and may be after the patient leaves the health unit.

ATS (Admissions, Transfers & Separations) is the patient information system that records admissions, intra hospital transfers, bed changes and separations of patients.

Clinician is an allied health professional or associated worker providing health care to/for patients or the community.

Components are items which are purchased as one unit, but themselves are manufactured items (eg, knee joint).

Consignment Stock is stock that is held in the local store but has not yet been paid for. Generally, when the item is issued, the supplier is paid.

Consumable Items are generally “one use” items which are used in the provision of allied health treatment. Consumable items may be retained by the health unit, or given or loaned to patients.

Diagnostic Related Group (DRG) is a patient classification system that relates the type of patient treated to the relative amount of resources required to treat the patient.

Episode of Care is a term used to define the period of time over which a particular condition is managed by a particular allied health service. This may extend over a number of days and it may comprise a number of visits. For allied health services, the episode of care may continue after discharge from the health unit.

Equipment are physical items which are used multiple times in the provision of allied health treatment. Equipment may be retained by the health unit or given or loaned to patients.

Group is two or more patients receiving treatment by allied health clinicians at the same time. Generally, this is provided for patients with similar treatment needs.

Health Unit Admission Date is the date that a patient is admitted to the health unit for treatment. This date only applies to inpatients.

Health Unit (Medical) Diagnosis Codes are the primary and additional diagnoses associated with the patient's admission (ie ICD-9-CM codes) obtained through an interface to the ATS system. Initially these would be admission diagnosis codes, but would generally be updated when the ICD coding takes place, usually after the patient is discharged.

Health Unit Discharge Date the date the patient is discharged from the health unit.

Health Unit Project or Program is a grouping of related activities. Examples include projects for study or research purposes, or alternative funding programs.

Inpatient is a patient that is admitted to the health unit for care and occupies a bed during the admission.

Intervention is patient related activity performed by the clinician.

Manufactured Product is an item that has been made by the allied health department. It may have been made from a number of components, materials and supplies.

Materials are items of which all or part is used in the manufacturing process (eg, a sheet of plastic).

Occasion of Service is any examination, consultation, treatment or other service provided to a patient by an allied health department.

Outcome is a measure of a patients progress during the episode of care.

Outpatient is a non admitted patient that receives health care services based at the health unit and leaves directly after the treatment is provided. Outpatients may be further categorised as followup patients (resulting from inpatient treatment).

Outreach Patient is a patient that receives health care services provided by a health unit, but at a location outside of the health unit.

Patient Insurance Status indicates whether the patient has medical insurance, is a public patient, is a veteran, or is a compensable patient.

Patient Type indicates whether the patient is an inpatient, outpatient or outreach patient.

PMI (Patient Master Index) is the patient information system that records patient demographic details such as address, date of birth etc.

Referral Source identifies where the patient's referral for allied health management came from.

Supplies are items which are used in the manufacturing process, but are considered overhead type items (eg, glue).

Treatment is the provision of a form of intervention that targets behavioural changes or change in a function.

Unit Record (UR) Number is the unique number that the health unit assigns to each patient treated within the health unit.

Vendor Held Stock is stock that the supplier or vendor holds in their warehouse on behalf of the health unit.