Buying Guide

General Practice Software Packages

This information is provided as a guide to the types of issues that should be considered and included when acquiring a GP Software system. The information contained in this document is of a general nature only and is not meant to replace professional advice.

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1. Introduction

As a result of consultation with key stakeholders in General Practice software application and development, the following advice has been produced for general practitioners, Divisions of General Practice and other interested parties. The issues raised should be considered when deciding which software would be most suitable in terms of the functions and services on offer. They should act as prompts for discussions with software providers in order to determine the nature of the available functions and their performance within the system.

The functions are divided into four categories

- General functions of any software package
- Prescribing package functions
- Practice Management functions
- General services provided and quality expectations

The functions are listed are those generally considered most important, worthwhile or desirable and those functions that could be considered as optional extras.

A fifth category - medical records – will be added in the future. It is also anticipated that a matrix will be developed in order to measure and rate software package capabilities and quality.

This guide is intended to outline what is available and recommend what functions should be taken into consideration. It does not intend to be prescriptive in terms of what a software package must or must not have. It is up to the individual user(s) to finally decide what is needed.

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2. General features

- MOST IMPORTANT FUNCTIONS

a) Back up facilities

Practice backup needs are determined by many factors other than the specific needs of the particular clinical or practice management software, for instance, practice system configuration and other logistic requirements. There are a number of possible backup operations including hard disk, tape, floppy disk and mirrored sites .

Any backup system is only as good as the frequency and reliability of backups. A transaction-based system allows the recovery of data between last the backup and the time of the system crash. Database integrity should be checked prior to every major system backup.

The regularity of backups can vary depending on the system used. It is recommended that backups be done on an as needs basis – preferably daily, weekly and monthly. A good question to ask is "if I lost the last lot of data that I entered could I recover it any other way". This may necessitate two backups per day. Furthermore any back- up should be taken off-site , for example, take discs or tapes home at the end of the day with the crucial data on them. There must also be a validation procedure t built into the backup process that indicates the backup has been successful..

A restoration feature provides information on exactly what is being backed up. It is crucial to any backup procedure.

b) Y2K Compliance

While we have safely made it into the year 2000, compliance for Y2K should continue to be checked. Non-compliant software may cause problems.

c) Multi – Dr capability

To protect patients 'and practitioners 'privacy of records, it is important, even a solo practitioner, to be able to run the software system when a locum or alternative doctor is in the practice. The locum needs to access general patients note but not confidential practitioner or practice information.

Multi-doctor capability allows different people to log onto the system with different permissions (where levels of access are determined) so that the GP can protect privacy. It also increases the number of providers that can work from the practice.

d) Multi Co/Entity

Allows records to be kept separately for individual companies, which is important if the practice is a co-operative arrangement between doctors operating from the same premises but for their own practice. Only some software packages are capable of this function.

General Features continued

e) Multi user capability

Allows more than one person to use the software at a time.

f) Exporting demographic data in a generic format

This allows data such as statistics to be imported into other packages easily, enabling the mapping of patient information.

g) Search and extract capabilities

Enables locating patient files or particular information quickly and easily.

h) Minimum Hardware requirements

Experts suggest that rather than looking at your minimal hardware requirements, it is better to utilise the fastest hardware available because future applications may well need increased hardware capacity. Bear in mind that requirements will depend on the software selection(s), practice set up and vendor specifications.

i) Import/Export

Both a time saving feature and an essential tool Patient demographics can be downloaded (imported) from such places as the local pathology provider to populate (?) a new database for the practice with the doctor's current client base. These downloads need to incorporate and document validation processes to check the integrity of the data after the import/export process.

- VALUABLE AND WORTHWHILE FUNCTIONS

a) Contextual help function

This ensures any help features that come up whilst using the software are meaningful for the situation, leading by example.

b) Compatibility with other software

Packages that are incompatible can cause PCs to freeze or crash.

c) ISO9001 Quality Assurance

Is an assurance or guarantee that the software has been produced to the standard outlined?

d) Reference sites

It can be advantageous to view the system or software running *in situ* and to speak with customers that have tried the software.

General features continued

e) Contact database/address book

This means you can use easily contact other providers, community services, government agencies and suppliers without having to re-enter details.

This enables efficient storage for updating and retrieving the many contact numbers required in a general practice.

f) Identifying duplicates and merging duplicate records

The system prompts if the same name is entered.

g) Relating patients/family groups

Permits family records and billing to be linked d for families.

h) Storing numeric file numbers

This is important when transferring from a manual to electronic system

OPTIONS AND EXTRAS

a) Is a Wide Area Network (WAN) possible?

Allowing it to be networked between individual sites.

b) Does the system haveMulti-site Capabilities?

This differs from a wide area network (WAN) in the situation where a solo practitioner may have two surgeries that are not networked but need to be able to share data sets between the two surgeries.

c) Does the system have Internet links?

Is it able to browse the Internet from within an application?

Is it able to launch the user's favourite browser from within the system?

It is abile to use the Internet for software upgrades or data upgrades?

d) Can it import address book details?

This reduces the need for re-keying basic information if address details are held in a separate address book or database. Often specialist contact details are available from hospitals or community services information from the Department of Health.

3. Prescribing

- MOST IMPORTANT FUNCTIONS

a) Capability to generate real-time interactive warnings for potential interactions or contra-indications for

i) drug-drug

ii) drug-disease

iii) drug-pregnancy

iv) drug-lactation

v) drug-elite sports

vi) drug-allergy

vii) to a specific product

viii) to a generic compound

ix) to a drug class

x) drug-food eg drug-gluten

This is designed as a preventative measure and improves the quality of prescribing such that drugs or substances which may not be the best for the patient are not prescribed or a warning appears, highlighting a potential risk.

b) Electronic exchange of information/data

The ability to transfer information will become increasingly important. As such, having the ability to send information electronically such as electronic scripts to pharmacists, patient summaries to hospitals, submission of patient assignment claims or de-identified data to local Divisions of General Practice is a valuable feature of software packages.

c) Interactive drug warnings

It is important to determine the primary organisation responsible for the maintenance of the decision support functions for drug interactions and how often it is updated.

The drug interaction feature should be able to detect and flag possible interactions not only between products under their brand name but also their generic name or even by class of drug.

d) Incorporates updates from PBS and DVA prescribing data

Ensures any changes can be easily and quickly imported into the package.

e) Maintains individual Patient list of medications and allows a list of medications to be displayed

f) Security of prescribing system allows only approved person to prescribe
This protects the system from unauthorised access .

g) Capability to capture, utilise and report on the patient's history of medication use
Summary information on patient history can be valuable in the monitoring of progress and medication.

h) Summary of current therapy on prescribing screen
Summary of adverse reactions or allergies to previous therapy or medications to ensure any problems are not repeated.

i) Capacity to capture and report all OTC, recreational and doctor supplied and/or dispensed drugs
The ability to report on other drugs used or treatments pursued can be listed so any potential cross reactions can be prevented.

j) Full text Product Information
Examples include; MIMS, A-Z DEX/PP Guide
These provide detailed product information on dosages, uses and interactions.

k) Unique identifier for each script produced for search and retrieval purposes
Provides a good cross check and audit trail of scripts. It also means pharmacists can easily and quickly refer to the appropriate script if there are any queries.

- VALUABLE AND WORTHWHILE FUNCTIONS

a) Linking a diagnosis to the medication

b) Flaging non-compliance

c) Flaging possible abuse/overuse

d) Selecting medication from a range of attributes such as class, PBS status, disease category,

Prescribing continued

e) Capacity to match prescribed quantity to the appropriate period for therapeutic review which is reflected in amount and form prescribed

f) Capability to set a system default where brand names are automatically converted to the generic equivalent and, where appropriate, on the basis of bioequivalence

g) Capability to capture, utilise and report on the efficacy of that medication use where possible

h) Ablility to print ADRAC reports

i) Capability to have the system learn specific alerts and warnings for specific patients and give the user the option to turn the warning off for a user-defined period

j) Providing assistance in the selection of appropriate medicines and dosages for the management of a patient's known illnesses, guided where appropriate by relevant therapeutic guidelines

k) Monitoring of medication to related outcomes, for example, tracking BP changes according to medication prescribed

l) Providing additional reference information on medications and disease states

m) Consumer Medicines Information made available for viewing and printing

n) Printing drug information for patient

o) Ablity to incorporate Decision Support Tools (eg Quality Use of Medicines, Therapeutic Guidelines)

p) Providing integrated dose calculation at the point of prescribing (eg pediatric, age, weight)

q) Ability to create and store extemporaneous preparation

r) Displays brand price premiums and/or therapeutic group premium and generic alternatives

Prescribing continued

- OPTIONS AND EXTRAS

a) Links to accounting programs

Can improve workflow, as the reception no longer has to wait for instructions regarding billing for a consultation Does the program provide for the electronic exchange of information/data. So pathology reports, requests etc can be imported directly into the patient file?

b) Capacity to manage doctor dispensed drugs

c) Capacity to print patient drug chart

Capacity to print hospital drug chart

4. Practice Management

- MOST IMPORTANT FUNCTIONS

  a) GST Compliance

  This is necessary to ensure a smooth transition from non-GST to a GST system.

  b) Patient billing

  Avoids double-handling by calculating the charges for the patient and allow for various billing options such as third part claims.

  c) Electronic HIC/DVA claims

  Facilitates the claims process by lessening administrative work and speeding up the claims process.

  d) Generates appropriate financial and practice management reports (income, receipting, adjustments, banking, aged debtors, trial balance, demographic data)

  Required at different times to monitor the performance of the practice by doctor or by practice. Enables the production of a standard letter such as recall letters, reminders for vaccinations and pap smears.

  e) Provides an audit trail

  A protective measure so records cannot be changed without noting the time, place and person who changed the record.

Practice management continued

- VALUABLE AND WORTHWHILE FUNCTIONS

  a) Appointment making

  i) Can the practice designate the time intervals?

  ii) Can double bookings be made?

  b) Consultation, arrival, waiting time and completion time

  Allows for easier management of the practice, improved scheduling and time management.

c) Viewing Medclaims?

d) Electronic ACIR claims

e) Magnetic swipe

f) Label Printing

g) Generates appropriate management reports

h) Full general ledger

- OPTIONS AND EXTRAS

a) Patient billing links to other software

b) Creditors ledger

c) Payroll

d) Stock control/inventory

5. Services and Quality

- MOST IMPORTANT FUNCTIONS

  a) System user documentation

  b) Ability to export data to a structured format in case of vendor collapse

  c) Ability to transfer data from previous versions to new version of same software

- VALUABLE AND WORTHWHILE FUNCTIONS

  Gather information about:

  a) Time of company operation
  b) Number of Staff -
     i) total
     ii) service area
     iii) development
     iv) training
     v) administration

  c) Number of offices

  d) Dealership relationships

  e) Costs of -
     i) initial purchase
     ii) updates
     iii) installation
     iv) initial training
     v) ongoing training/support (help line facility)

  f) Frequency of software upgrades

  g) Installation process

  h) Options and Extras

  As negotiated on an individual basis.

6. Future considerations

a) Ease of learning

It is difficult to rate the ease of learning for any particular package because it depends on the user's computer literacy. What may be simple to one user may seem complicated to another. As such, it is more indicative to determine the amount of time the vendor would deem appropriate to understand and operate the system. Some may require formal training whilst other systems could be learnt as they are used. Nonetheless it is important to quantify this when considering any package.

b) Secure Email links

As we are still waiting for the outcome of *Project Gatekeeper* no vendor is able to provide this facility at present.

Electronic transmission of personal health information to any external computer will need to comply with relevant legislation and a comprehensive data security standard (if developed) that addresses encryption, authentication and non-repudiation approaches for health care messages between agencies and service providers.

c) Protection of clinical data

Can the software store and protect clinical data in case it should ever become necessary to produce in court?

The ability of a software package to protect clinical data for admissibility in court needs to be discussed with individual vendors.

Whereas the Federal Government and State Government Evidence Acts appear to broadly recognise electronic records as admissible evidence to varying degrees, there is wide variability in the scope and level of authentication required. Furthermore , the legal weighting a court may apply to electronic records tendered as evidence is variable.
The issue of proof of validity of the electronic record is dependent on a number of factors including:

- rigor and reliability of software.
- data integrity management employed.
- hardware issues related to the media used to store the record.
- integrity and reliability of data storage and retrieval.
- individual work practices in ensuring data validity.

a) Data corruption

It is important to determine whether a program can identify data corruption in its various forms.

Database integrity checking utilities should at the very least, be able to:

i) identify any corrupted data in the database.

ii) identify and repair any corrupted indexes in the database.

iii) generate a report detailing any problems encountered.

Preferably such a utility should also be able to assist in the recovery of that data from alternative sources such as backups and/or transaction logs.

a) Other issues

Clinical Functions have not been considered in this guide and will be given similar analysis and description in the ensuing months.

Privacy and Security standards are still being developed in this area. It is anticipated that some guidelines will be forthcoming in 2000.

The upward migration of data is possible with some software programs but in varying ways. Some are capable of exporting to other programs but may require data interchange formatting. Standards are still to be defined for this.