

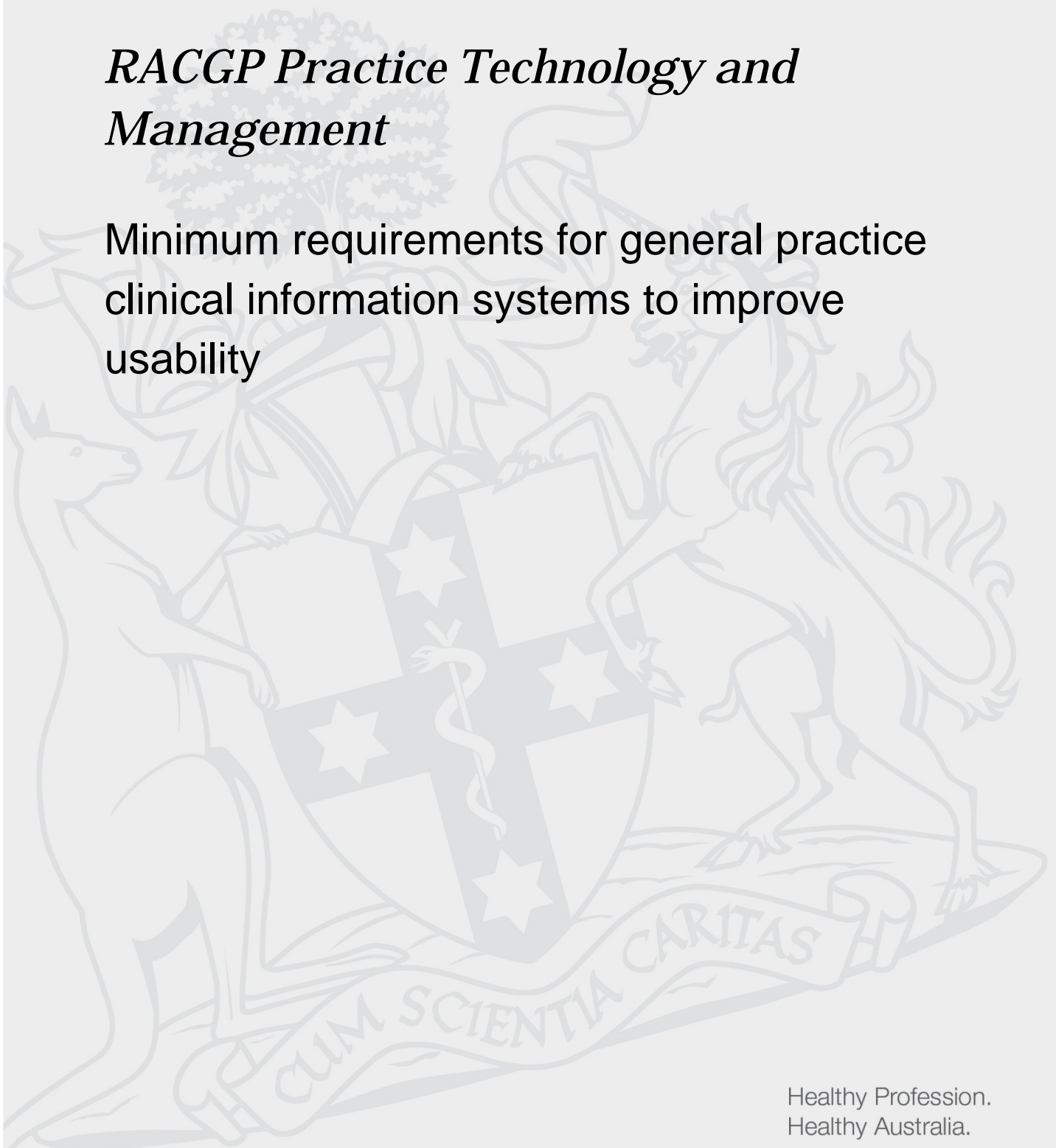


RACGP

Royal Australian College of General Practitioners

RACGP Practice Technology and Management

Minimum requirements for general practice clinical information systems to improve usability



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1. Executive summary

The last two decades have seen widespread adoption of clinical information systems (CIS) in general practice. The future of safe and efficient patient care depends, to a large degree, on these systems.

Modern healthcare delivery models require the transfer of information between care teams, across disciplines and between care sites. General practice CIS improve accessibility and legibility of data. However, as the volume of information generated and held within CIS grows, it is becoming increasingly difficult for systems to respond to the needs of general practitioners (GPs) and patients as part of normal clinical workflows.

For GPs to work safely with any CIS, information needs to be collected, managed and used in a standardised way, which will also contribute to creating a positive user experience. There is now growing recognition from users and developers that a set of minimum requirements could, in the future, become standards governing the design and development of CIS.

Through the development of standards and guidelines, the RACGP ensures Australian general practice remains at the forefront of safe, high quality primary healthcare delivery. The RACGP therefore has a key role in progressing the clinical usability and safety agenda through the development of standards.

The Royal Australian College of General Practitioners (RACGP) set about developing a set of minimum software requirements for two reasons:

1. To articulate what is expected from CIS to ensure they meet the needs of users, are safe and secure, and
2. To help direct improvements in future useability and functionality.

This report identifies and details a number of key CIS functions and roles, and provides recommendations focused on improving usability in the collection, management, use and sharing of information. These are the core clinical value propositions for GPs.

While the RACGP would like to see consistency of functionality across products, there is an appreciation developers need to continue to be able to innovate and compete on the basis of differentiation.

The recommendations contained in this report are the result of collaboration between software developers, the principal users (i.e. GPs) and the Australian Digital Health Agency (the Agency). Collaboration is essential to ensure that minimum requirements for CIS reflect not only the needs and desires of principal users, but also the constraints of technical design capacity.

Workshops were facilitated by the RACGP on 23 January 2018, 26 July 2018 and 10 September 2018, bringing together over 40 attendees, including representatives from the Agency, the Medical Software Industry Association (MSIA) and a number of software developers. Participants at the workshops discussed:

- past RACGP attempts at engaging with the GP clinical software industry in Australia
- the role of the [RACGP Standards for General Practice](#) (5th edition) and how they relate to clinical software, and
- current CIS functionality with My Health Record.

It was acknowledged that:

- there is mutual agreement in both the vendor and general practice community that CIS used in general practice are complex
- GPs and clinical software developers share the same vision of high-functioning and usable CIS to support general practice clinical workflow and patient care
- a collaborative approach to minimum requirements will benefit both developers and users of general practice CIS
- this work presents an opportunity for the GP community and the developer community to prioritise CIS requirements to meet current and future healthcare needs
- developers' intellectual property (IP), technical design capacity and ongoing innovation must continue to be recognised and considered, and
- common agreement on minimum requirements for CIS could be beneficial

This report outlines the priority areas identified in the workshops.

Please note that the report does not address every one of the issues identified, and focusses on areas for improvement only (as opposed to current functionality). The recommendations were developed through consensus, are based on available evidence, are not prioritised or ranked in a specific order, and reflect clinical practice workflows.

It is hoped that the RACGP, software developers and the Agency will continue to build on this work to make the recommendations in this report a reality, creating a standards framework to guide the development of CIS.

2. Acknowledgments

We acknowledge the funding and support received from the Agency that enabled this project to take place.

We thank all participants at the workshops that took place in Melbourne on 23 January, 26 July and 10 September 2018.

We thank members of the RACGP's working group:

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3. Background

3.1. The RACGP and CIS

The RACGP is Australia's largest professional general practice organisation, with a significant reach across Australia supporting 39,000 members working in or towards a career in general practice.

As the independent member-based organisation for general practice, the RACGP is the national leader in setting and maintaining standards for practice and education. In particular, the RACGP's *Standards for general practices* provide a framework for safe and high-quality care and are used by over 80% of Australian general practices for accreditation.

The RACGP has a strong history of advising governments and other stakeholders on what is reasonable, workable and useful for general practice. This includes promoting the potential of eHealth to deliver substantially greater quality, safety and efficiency benefits.

The RACGP has long held an interest in this area, first publishing IT policies in the 1970s and *Standards for Computerised Medical Record Systems* in the 1980s. The RACGP continues to provide information and advice on eHealth developments, information and record management, and issues affecting the future operation of Australian general practice.

The current RACGP Expert Committee – Practice Technology and Management (REC-PTM) (formerly RACGP Expert Committee eHealth and Practice Systems) oversees and supports a program of work which includes:

- developing business tools and resources to support general practice's use of eHealth technologies
- advising the RACGP on the development and promotion of eHealth standards in general practice
- developing RACGP position statements on key external eHealth initiatives
- hosting educational programs and events, including the annual RACGP eHealth Forum, which brings together leaders in eHealth to share ideas on the future of digital healthcare. Topics discussed at the eHealth Forum help define the strategic agenda for the REC - PTM for the year ahead.

The REC – PTM produces a range of resources covering topics relevant to general practice management and the use of eHealth technologies. Most recently, the RACGP has released the following resources:

- [Information security in general practice](#) – details and recommends essential business practice, policies and procedures to help protect general practice information systems. It is not designed to be a technical document, but rather an educational and training resource for GPs and practice teams.
- [Guide to information backup in general practice](#) – provides recommendations, practical advice and checklists to help general practices achieve secure and reliable information backup and data recovery processes.
- [mHealth in general practice – a toolkit for effective and secure use of mobile technology](#) – provides general practices with a framework to introduce and promote the safe and effective use of mobile devices and mobile technology in general practice. It offers step-by-step guidelines to ensure general practices build an mHealth culture and understand how mobile technologies may affect practice policies.

3.2 RACGP OPTIMUS project

Despite its strong interest in the area, the RACGP and its members have had limited opportunity to work directly with general practice software developers. In 2013 the RACGP established the OPTIMUS project (**O**pen **P**rimary care **T**echnology that is **I**nteroperable **M**eaningful **U**seable and Safe and **S**ecure) to support ongoing dialogue between software developers, medical defence organisations and the general practice clinical community.

The OPTIMUS project was developed to determine common achievable goals and agreement on the functional system requirements of GP CIS and to ensure that they provide functionality that both reduces risk and supports quality and safety.

The OPTIMUS project delivered a number of key recommendations including [Managing external requests for patient information](#) to advise on which data elements should be extracted from a patient's electronic medical record when responding to an external request for their record.

In order to reduce clinical risk, the key goal of OPTIMUS was to have all CIS standardised in the way they record, use and share information.

3.3 GP CIS usability

The vast majority of Australian general practices now use CIS, which have become vital tools in the delivery of safe and high-quality healthcare and good practice management. Some of the core functions of general practice CIS are to:

- manage patient personal details and demographic information
- record healthcare history, social history, risk factors and allergies
- record, track and support follow-up reminders for preventive medicine and recalls for ongoing care
- manage medications and generate electronic transfer of prescriptions
- create electronic referrals and receive electronic reports, including specialist letters and discharge summaries
- create electronic diagnostic orders and receive laboratory and radiology reports
- enable clinical audit
- enable the secure electronic exchange of clinical and non-clinical information, both point-to-point and point-to-share, and
- provide decision support in various forms (eg drug–drug interaction checking, drug–disease interaction checking, checking for appropriate care in people with chronic diseases).

CIS should facilitate good clinical practice, including the facilitation of continuity of care, support for point-of-care decision making, monitoring of critical events, and limit/prevent clinical incidents and errors. However, designing CIS to support general practice is challenging, as a balance is required in the design of CIS between comprehensiveness and utility. If CIS are too complex, with too many detailed structure and content requirements, users often take shortcuts (e.g. avoiding documenting what they consider to be less relevant types of information).

Over the last two decades, general practice CIS have evolved in their complexity and functionality, and there are numerous products available in the Australian market. Over time, multiple options and functions have been incorporated into CIS, some of which are core, while others are based on specific client requirements or requests. This has resulted in very comprehensive software, but as a consequence, certain

functions may now be cumbersome or redundant, and in some areas software may be out of step with current healthcare delivery models and clinical workflow. Depending upon their design and testing, CIS can affect the safety and quality of clinical care.

Usability can be defined as the effectiveness, efficiency and satisfaction users achieve when completing tasks in a software system. Improved usability of CIS can only be achieved if general practice and software developers work together to establish what GPs and patients need, so that systems are designed accordingly.

CIS design needs to be guided by an agreed standards framework to support the implementation of useable functionality.

3.4 Healthcare information and technology standards

The key role of standards is to create consistency and compatibility. Standards are usually established by a recognised body, and created largely by consensus. Most standards are voluntary and not mandated by law. Standards can become mandatory if they become a legal requirement.

Standards for healthcare software can:

- assist providers improve their quality of health services
- determine what type of care should be offered and identify gaps in their current system
- improve health and safety outcomes
- provide policy makers with access to evidence and expertise to assist with decision making, and
- help healthcare organisations benchmark against one another on various levels.

Internationally there are a number of countries with standards governing healthcare software requirements to improve interoperability between systems.

New Zealand

- The Health Information Standards Organisation (HISO) promotes development and use of standards to ensure interoperability between systems
- Systematized Nomenclature of Medicine—Clinical Terms (SNOMED CT) has been endorsed as a national standard for clinical terminology in New Zealand
- Every person who uses health and disability support services has a unique national health number, facilitating the process of building interoperable systems and structured electronic transfer of information
- Primary care providers can transfer patients' records securely between practices, send electronic referrals, and receive electronic hospital discharge summaries.

England (NHS)

- GP Systems of Choice (GPSoC) is a contractual framework to supply IT systems and services to GP practices and associated organisations
- NHS Digital manages the framework
- GP practices choose systems that best suit their needs from a range of four principal system suppliers
- Practices get a choice of approved systems and save time by not having to run their own procurement. They benefit from discounts through the central purchase and standardised terms and conditions
- GPSoC systems comply with the Standards to capture all data items relevant to a primary care setting
- SNOMED CT implementation in primary care deployed to GP practices in 2018.

Wales (NHS)

- Minimum System Specification (MSS) provides a functional and technical standard as well as the processes for systems to be approved
- GP Clinical Systems strategy aims for standards and interoperability across a number of functions including:
 - referrals of patients
 - test requests and barcode labelling
 - transfer of GP medical records
 - discharge summaries
 - notifications of unscheduled care
 - document scanning
 - management of electronic clinical documents/attachments
- NHS Wales has also developed 'National Architecture Standards', and published the National Infrastructure, Applications and Security Strategies for NHS Wales which mandate compliance against technical and interoperability standards for GP clinical systems.

Ireland

- Health Information and Quality Authority (HIQA) develops the standards for the collection and sharing of information across the health and social services sectors and the standards for interoperability of information systems
- GP practice management software products are certified against the Requirements for Certification 2007 (RFC 2007)
- There are 38 mandatory functions in RFC 2007 - Practice management software must pass all mandatory functions
- There is a voluntary accreditation process
- There are currently four accredited GP software systems
- Approximately 95% of the computerised practices use accredited software systems.

Denmark

- MedCom (a cooperative venture between authorities, organisations and private firms linked to the Danish healthcare sector) sets all health information related standards
- National standards for text-based clinical messages and communication flow between healthcare providers and other healthcare organisations
- Developers must meet all messaging standards, presentation formats and functionality for GP clinical software and do not pay for certification
- Citizens have a unique electronic personal identifier, used in all public registries, including health databases and an electronic medical card containing encoded information about prescriptions and medication use that patients and all relevant health professionals can access.

4. Recommendations for working towards minimum requirements

4.1 Health record content

The quality of patient health records is critical to safe and effective healthcare. One of the main purposes of a clinical health record is to hold information about a patient that is required for effective care and decision support. With the increasing use of shared care models and the potential increase in use of My Health Record, the quality of this information is now more important than ever. No longer serving only individual GPs or practices, information in a patient's health record is likely to be shared between, and relied upon by primary, secondary and tertiary healthcare services, and the patient themselves.

Aside from contributing to effective, safe and personalised patient care, general practice health records also serve a number of other purposes, including:

- providing data for quality improvement and research
- contributing to education, and
- providing healthcare evidence for medicolegal purposes.

All of these uses depend on records containing high-quality information that is readily accessible by different authorised users.

Maintaining high-quality health records is not always regarded as a priority by general practices or GPs. Competing demands on busy clinicians and practice staff means the importance of quality health records is often overlooked, and some may not be aware of what is expected of health records. However, many GPs do this very well and all GPs should view this as part of their professional role and duty of care.

The use of different coding and terminology across general practice CIS makes it difficult to transfer, compare and analyse data between systems. This is a barrier to effective data exchange, semantic interoperability, research and quality improvement.

Criterion QI1.3 of the RACGP *Standards for General Practice* (5th edition) (the *Standards*) requires practices to use a nationally recognised medical vocabulary to collect structured data that can be used to improve quality and safety.

Free-text information in CIS is important for providing context for a patient's health information, but it is prone to ambiguity and is difficult to search.

One of the challenges faced by clinicians is the difficulty in curating a medication history reliably and efficiently due to the use of different terminologies and local identifiers for medicines. Different systems describe medicines in various ways, which can cause confusion when clinical information is exchanged.

The lack of consistent medicines terminology may lead to errors adversely affecting clinical safety. The Australian Medicines Terminology (AMT) uniquely and unambiguously codes and describes all commonly used medicines. AMT is limited however, in that it does not include coding for over the counter medicines.

High-quality health records support good patient care and facilitate:

- safe clinical decision making
- effective communication between health professionals
- trusting partnerships with patients
- coordination and continuity of care

- population health, and
- research.

4.1.1 Recommendations

1. CIS must facilitate the input of high-quality data by users.
2. Core clinical information must be displayed in a way that makes it easy for users to access and view.
3. CIS functionality must support users to maintain the currency of patient information and lifestyle risk factors in line with RACGP clinical guidelines.
4. CIS must support the use of standardised terminology, nationally recognised coding systems and medical vocabularies.
5. Free text must be restricted to the narrative sections of the record and complement the coding system.
6. AMT must be implemented in clinical information systems to support electronic medication management activities.
7. To improve the usability of SNOMED–CT (AU) at a clinical level, a GP reference set for core general practice data must be developed and adopted by developers.
8. Structured data entry must be usable and align within clinical workflows.

4.2 Communications

General practices should be able to receive, review and incorporate health information from other sources into their existing local health records efficiently and in a manner that supports patient confidentiality, quality clinical handover and effective continuity of care.

The provision of contemporary healthcare involves patients interacting with multiple healthcare professionals in different locations and patients moving between general practices. The exchange of patient information across the healthcare sector is therefore a requirement of modern healthcare provision.

GPs are often the primary care coordinators for patients, and depend on other healthcare organisations to reliably provide additional details regarding diagnoses, treatments, investigations, management plans and outcomes.

Despite most general practices using electronic clinical and practice management systems, patient information is still being faxed, mailed in hard copy or provided in an electronic format not compatible with clinical software. In most circumstances, when patient information is transferred to a general practice, the details need to be manually transcribed into the local CIS. This is not only very time consuming, but also results in a significant risk of transcription error.

Information leaving general practice often requires significant manual processing, as most health services, legal services, the insurance industry and government agencies continue to require information be provided via paper based or online forms. This unstructured/uncoded information is then delivered to the relevant agency via an online upload, post, fax, or standard non-encrypted email.

The current process is not patient or GP-centred and is highly inefficient and frustrating for general practice. It is a security risk and creates a heavy burden for GPs and their teams, diverting their time away from providing medical care for patients.

Under Criterion C5.3 of the *Standards*, practices are required to have a process for safe clinical handover within the practice and to external care providers. This criterion does not detail what specific information

should form part of the clinical handover or specify how the handover should take place. The RACGP resource [Managing external requests for patient information](#) advises which data elements should be extracted from a patient's electronic medical record when responding to external requests for their record.

The *Standards* require practices to transfer relevant patient health information in a timely, authorised, and secure manner under Criterion C6.3; however, there are no mandatory requirements about how this information should be transferred. There are concerns that once data leaves a practice there is little transparency regarding what happens to this data and how it is subsequently used.

The provision of high-quality, effective and safe healthcare depends on efficient communication between all parties involved in a patient's care. Secure electronic communication is currently one of the most efficient methods of communication.

The [RACGP position statement: The use of secure electronic communication within the health care system](#) recommends secure electronic communication as the preferred and default method of communication for health services and government agencies exchanging patient information. Interoperable and secure electronic communications environments should be established across the healthcare sector.

GPs should feel confident information communicated to or received from other healthcare providers outside of the general practice is current and up to date and that the provider is clearly identifiable (data provenance).

4.2.1 Recommendations

1. In order to maintain data provenance, data imported into CIS must be clearly identified as coming from an external source, including the details of where the data came from, in what format, and the sender details.
2. CIS must have the ability to connect to industry agreed standards based interfaces to exchange information.
3. CIS must ensure all access and use of clinical information is subject to accepted data governance standards and Australian Privacy Principles.
4. GP practices and CIS developers must have appropriate contractual agreements in place to document the roles and responsibilities of all participating parties.
5. CIS must have the ability to exchange data for a range of purposes to support safe clinical handover.
6. CIS must have the ability to directly transfer healthcare information across all general practice software (record-to-record transfer).
7. All electronic communications sent externally must be capable of seamlessly populating with existing data from the local CIS to create content.
8. Information received from external sources must be capable of seamlessly populating into existing CIS data fields after being reviewed.
9. All electronic communications must align with secure data handling principles, to protect patient privacy and confidentiality.
10. All CIS developers must embed the new interoperability standards, including the industry agreed Application Programming Interface (API) for provider directory searching, document exchange and rendering.
11. Core common data elements must be recorded in the CIS local directory.

4.3 Patient consent for secondary use of general practice data

General practice health information is highly digitised and the collation and aggregation of patient healthcare data creates new analytical possibilities for healthcare researchers, providers and policymakers. This has resulted in increased demand for general practice data.

The healthcare system in Australia is facing a number of challenges, including the management of chronic disease and caring for an ageing population. The collection of high-quality health data and its use for secondary purposes at a general practice level has the potential to:

- facilitate increased efficiencies in care delivery
- create more proactive preventive interventions
- identify at-risk populations
- inform health strategy and planning, and
- support quality improvement initiatives and reduce variation in care.

General practices are custodians of patient data, with a responsibility to ensure it is accessed and used appropriately. Practices must protect patient rights and privacy when providing data for secondary use. This will be aided by implementing policies and procedures specifically for managing requests for access to data which can be supported by CIS.

Practices should make patients aware they are providing de-identified data for secondary purposes. CIS should include functionality to ensure that patients who do not consent to secondary use of their data, or subsets of their data, are removed from any data extraction process.

General practices will need to become adept at discerning who, when and how it is appropriate to provide their data for secondary use and CIS functionality needs to support this.

4.3.1 Recommendations

1. CIS must allow users to record patient consent for the secondary use of both identified and de-identified data.
2. CIS must provide opt out mechanisms to exclude patients and healthcare providers who do not want their data or subsets of their data shared for secondary purposes.
3. CIS must support data extraction to share data for secondary use or to share data directly with patients.
4. CIS must have functionality that protects patient and healthcare provider privacy and safety when data is used for secondary purposes.

4.4 Information security requirements

CIS should support quality practice in terms of identity management, access controls, role-based permissions, software redundancy, failover, data security, audit trails and in maintaining software currency.

Information security is critical to the provision of safe, high-quality healthcare and the efficient management of a general practice. It is a fixed cost of doing business, and requires adequate allocation of financial and human resources to ensure business continuity and the protection of information assets.

The threat of cybercrime (inappropriate or unauthorised criminal access to an individual's private information) is growing significantly. General practice faces new forms of malicious software and cleverly designed social engineering scams, placing clinical and business data at risk. The single leading risk to general practice information security is an internal breach through human error or malicious intent.

General practice teams have a responsibility to ensure cybersecurity measures are in place to protect practice CIS from cybercrime and online threats. Data that is lost, stolen, inappropriately used or accessed can result in identity theft or privacy breaches, which could ultimately place practices at risk of incurring substantial fines or penalties.

One of the key ways to reduce security risks is via the establishment of rigorous access controls and role-based permissions. Practice team members only need access to the minimum data required to fulfil their role. This limits the risk of data breaches and protects general practice data. Software should support authorised system login via appropriate methods including the establishment of strong and unique password policies and/or the use of other digital technologies to ensure access to CIS is controlled and secure. Access controls ensure accountability and allow for audits to ascertain who has accessed, entered or altered practice data.

Critical data in the practice must be regularly backed up (ideally in real time) and validated to enable practices to restore business functionality in the shortest time possible. Backup media must be secured from unauthorised access and copies held at an alternative location in case of theft or a natural disaster at the primary location. Backup and restoration may not apply if practice data is stored in the cloud and provided as Software as a Service (SaaS).

Regular maintenance of software and systems is an essential element of managing the information security of general practice software. This includes operating systems, clinical information systems, and security software. One of the key maintenance requirements is ensuring operating systems and software and hardware are up to date.

Updates and security patches are introduced to protect against new security threats. When software is out of date it may no longer be supported and any new updates stop. Using outdated and unsupported hardware and software can place general practice at risk of data breaches.

4.4.1 Recommendations

1. CIS must have identity management and access control frameworks consistent with industry best practice.
2. CIS data must be able to be backed up and recovered either natively or via a recommended third party product.
3. CIS must have mechanisms to ensure software currency.

4.5 Follow-up systems

Follow-up systems in general practice software rely heavily on system-generated 'recalls' and 'reminders' and these need to be handled consistently to improve efficiency and reduce clinical risk.

General practices use recalls and reminders either to follow up and review a recent event or cycle of care, which may include diagnostic tests and reports, or to support longer term preventive healthcare delivery.

A recall is issued after human intervention has occurred, and it is based on a GP making the decision the patient needs to be reviewed within a specified time frame.

A reminder occurs when a patient is added to a recommended preventive activity list that is generated and actioned on a periodic basis. Reminders may trigger a patient visit for follow up or remain in the patient's record for the GP to action at a future visit.

Under Criterion GP2.2 of the *Standards*, general practices are required to have a process in place to recall patients for review within a specified time frame. Practices are also required to have a reminder process for recommended preventive activities.

CIS usually generate 'prompts' that occur during consultations, or when viewing a patient's clinical record, to draw GPs' attention to recalls and reminders.

Each CIS has built in functions to generate a recall or reminder. However, there is a significant variation between the processes and use of terminology. There are multiple places where recalls and reminders may sit in each CIS. Consistency in the way that information is handled by different CIS, together with a standards based approach, will improve the manner in which information is collected, managed and stored, improving efficiency and assisting in reducing clinical risk.

4.7.1 Recommendations

1. CIS must use consistent terminology reflecting the above definitions of a recall and a reminder.
2. CIS must have consistent processes for generating and sending recalls and reminders.
3. CIS must have consistent views where current and outstanding recalls and reminders are visible and actionable.
4. CIS must have the ability to filter and prioritise different actions based on urgency and clinical importance.
5. CIS must have an audit log to track and trace the process for the completion of follow ups, to identify precisely what action was taken, when that action was taken, any response from the patient and whether the follow up has been completed.
6. CIS and administrative or management systems (for billing and appointments) must be able to exchange follow up information where required.
7. Follow-up appointments must be flagged in the CIS so that if a patient does not return as expected, the matter can be followed up, and recorded appropriately.

4.6 Collection of patient data

Under the *Medical Board of Australia – a code of conduct for doctors in Australia*, maintaining clear and accurate medical records is essential for the continuing good care of patients.

Good medical practice involves keeping accurate, up-to-date and legible records that report relevant details of:

- clinical history
- clinical findings
- investigations
- information given to patients
- medication and other management.

Records must be in a form that can be understood by other health practitioners and should facilitate continuity of care.

Under Criterion C7.1 of the *Standards*, practices are required to record:

- identification details
- contact details
- demographic
- next of kin
- emergency contact information
- Aboriginal or Torres Strait Islander status
- cultural backgrounds
- lifestyle risk factors, and
- family history.

Criterion QI2.1 of the *Standards* requires general practices to record a patient's known allergies. To meet this criterion, practices must have a record of known allergies for at least 90% of their active patient health records.

A key issue identified in CIS is the inability to record patient sex and gender and to recognise the differences between these two terms.

The Australian Bureau of Statistics (ABS) released the Standard for Sex and Gender Variables in 2016 which defines the sex variable as 'the biological characteristics' of a person's body' whereas the gender variable is 'the way a person feels, presents and is recognised within the general community. The Standard for Sex and Gender Variables includes standardised data definitions to support consistent collection, reporting and use of data. Most CIS do not use these definitions or adequately provide for capture of this data. The identification of sex and gender identity is important in the provision of high quality care.

4.6.1 Recommendations

1. CIS must support the consistent capture and recording of ethnicity.
2. CIS must display ethnicity in relevant screens to support appropriate clinical workflow and best practice.
3. CIS must support the collection of sex and gender in line with the relevant data collection standards.
4. CIS must alert practice staff to update relevant fields if there is no information recorded.
5. CIS must support the concept of data being entered once and used multiple times as required.
6. CIS should provide decision support links to the RACGP [Guidelines for preventive activities in general practice \(Red Book\)](#).

4.7 Closing the Gap in health care outcomes and quality of life for Aboriginal and Torres Strait Islander people

There is an opportunity to optimise care for Aboriginal and Torres Strait Islander patients, in both Aboriginal Community Controlled Health Services (ACCHS) and mainstream general practices, through the development of minimum requirements for CIS.

CIS could support GPs to identify Aboriginal and Torres Strait Islander patients, leading to an increase in the delivery of appropriate clinical services and interventions, such as health assessments, Closing The Gap (CTG) annotated scripts for discounted medicines, and referrals to allied health professionals, care coordinators and specialists.

Establishing strong links between collecting Aboriginal and Torres Strait Islander status, clinical decision supports, and uptake of GP-mediated health measures, specifically for Aboriginal and Torres Strait Islander

peoples, and embedding these links in GP software, is a long overdue reform. In the absence of government initiatives in this area, GPs are best placed to advocate for software changes.

The Australian Institute of Health and Welfare (AIHW) has recognised Aboriginal and Torres Strait Islander people are under identified in the data collection of health information and have developed [National best practice guidelines for collecting Indigenous status in health data sets](#) (the Guidelines). The Guidelines address the need for a more systematic national approach to ensure the standard Indigenous status question is asked correctly and consistently and that this information is recorded properly.

Results from the 2016 RACGP member survey and the [National guide to a preventative health assessment for Aboriginal and Torres Strait Islander people](#) (the *National Guide*) user review demonstrate better integration of clinical resources into software has important benefits for health professionals. Integrated clinical resources can support the delivery of health assessments to detect and diagnose common and treatable conditions that cause morbidity and early mortality in Aboriginal and Torres Strait Islander people.

Certain resources and procedures impact on the uptake of interventions supporting Aboriginal and Torres Strait Islander health. Feedback suggests the existing templates for the MBS item 715 *Medicare Health Assessment for Aboriginal and Torres Strait Islander people* lack functionality. Health practitioners tend to view the use of these templates as a 'box-ticking' exercise, rather than a quality health assessment based on the current clinical evidence.

The requirements for the 715 Health Assessment often impact on the decision to bill the item. Some practices have indicated they generally avoid billing 715 health assessments as the process is quite onerous and they have a general concern that the claim will be rejected by Medicare. This process could be supported by CIS functionality allowing general practice to deliver improved healthcare outcomes for Aboriginal and Torres Strait Islander people.

4.7.1 Recommendations

1. CIS must support identification of Aboriginal and Torres Strait Islander patients in order to deliver targeted and culturally appropriate care in accordance with the *National Guide*.
2. CIS must display Aboriginal and Torres Strait Islander status in all relevant clinical screens.
3. CIS must display an alert or prompt if the Aboriginal and Torres Strait Islander status has not been recorded.
4. CIS should provide decision support links to the *National Guide*.

4.8 Education and engagement

Barriers to general practice uptake of technology have traditionally been around a mistrust of technology, lack of GP interest in technology and a lack of belief that technology can improve the management of health information and lead to better health outcomes.

Additional barriers for small general practices have been the high cost of investment in expensive technologies, systems and support, and of education and training for practice staff in using technology.

The RACGP, as the trusted representative of the profession, can assist CIS developers to support general practice to improve their skills and knowledge regarding digital technology, to ensure they experience the full benefits of their CIS. This will enable more efficient practice and patient management, more timely communications, and better data collection – which will support the provision of safe and high-quality care.

4.8.1 Recommendations

1. CIS developers must continue to provide ongoing education and support to ensure users understand the functionality of CIS and how to effectively use this functionality when delivering patient care.
2. The RACGP and software developers must work collaboratively to support practices to invest in education and training for practice teams.

4.9 My Health Record

My Health Record is Australia's national electronic health record. My Health Record is an online repository for documents and data containing information about an individual's health and healthcare. The information can come from various sources including the consumer themselves, their healthcare providers and Medicare. Over time, My Health Record will accumulate large volumes of data, which may provide additional sources of information for healthcare providers. This information needs to be easily accessible from GP CIS.

The views obtained from My Health Record directly from CIS need to be clear and concise, which is currently not always the case, particularly in older software versions. Large amounts of data and lists of documents impact on usability, workflow and clinical safety. Some information is currently not available via CIS, such as details from the Australian Immunisation Register (AIR) and Advance Care Directive information.

The content of clinical documents within My Health Record cannot be searched. Most CIS have the ability to filter or sort documents and GPs find it difficult to determine which documents may contain relevant information. GPs often have to open multiple documents to find information.

Most CIS lack functionality to notify GPs when new documents are available in a patient's My Health Record.

4.9 Recommendations

1. Software developers and general practice need to work closely to ensure document lists are user-friendly and easily searchable.
2. Where a CIS does not provide a complete view of all information in My Health Record, it should provide direct access via the provider portal.
3. All document creation processes, whether for provider-to-provider communications or for sending to shared repositories, must be consistent in their workflow.
4. CIS must provide an audit trail of My Health Record access using Healthcare Provider Identifier – Individual (HPI-I) where applicable, or using other local identifying information for users who are non-healthcare providers.

5. Next steps

The next steps in this project would be to develop a detailed minimum set of CIS standards.

The implementation of standards for CIS in Australia would require the establishment of a framework to ensure:

- the standards can be implemented and used in day to day general practice
- the standards have a person focused approach to improve usability and patient outcomes
- the standards are underpinned by supporting guidance for software developers and software users
- there is a focus on the delivery of safe, efficient and high quality care

An approach would need to be determined and agreed upon and would require ongoing collaboration of all stakeholders. General practice CIS developers would need to be supported to make any technical changes required and to provide evidence as to how they conform to these standards.

Phase two will require a separate project proposal including budget.

References

1. How can GPs drive software changes to improve healthcare for Aboriginal and Torres Strait Islanders peoples? Helen Kehoe, Australian Family Physician Volume 46, No.4, 2017