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## Background – Why Data Management

The information available on your clinical software system can be an invaluable tool in assisting patient care and streamlining practice systems. However, for this data to be useful you must keep your clinical database accurate and up to date<sup>1</sup>. You need to be aware of the importance of having quality data and acknowledge that data is only as good as what is entered. You may be familiar with the term RIRO – Rubbish In, Rubbish Out.

Accurate knowledge of who your patients are and what diseases they have is essential to successfully managing chronic disease populations. Identification of patients with special needs and higher risks enables more intensive support to be provided where benefits are greater. Systematic recall processes ensure that patients do not 'fall through the cracks'.

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## Reasons to have Quality Data

1. To enable satisfactory continuity of care (e.g. meeting the information needs of other health professionals, transfer of care, patient/client seen by other health professional)
2. To make a decision on care processes or services and use resources most effectively (e.g. recall, reminders, consultations and investigations)
3. To adequately inform other health professionals about the clinical problem or question and allow appropriate triaging and service decision making in a timely fashion
4. To document clinical processes and services to protect the interests of the patient/client and health provider (e.g. litigation, third party claims, health funders, privacy principles<sup>\*</sup>)
5. Provide an accurate, timely and complete narrative on the patient's/client's health processes and services
6. To allow the review of clinical processes, decision making and management for teaching purposes
7. To facilitate the evaluation of clinical processes and outcomes (e.g. Diabetes Cycle of Care and target achievement)
8. To assist with answering research questions

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## Coding

Coding is simply a process of using, an agreed standardised descriptor and stored as a series of numbers or letters (e.g. Diabetes Type 2 and Non Insulin Dependent Diabetes Mellitus (NIDDM) which are the same health concept and are both coded as "Diabetes Type 2").

Often, practice clinical staff use a variety of methods when categorising patient's diagnosis. Some will type this information directly into the patient progress notes in the clinical software or enter this information as free text in the reason for encounter or diagnosis field. This process is called free texting or un-coded diagnosis. Free text is not easily searchable in any database by the clinical software or third party software (e.g. extraction tools) and is therefore **not** the preferred process.

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\* An organisation must take reasonable steps to make sure that the personal information it collects uses or discloses is accurate, complete and up-to-date.

<http://www.privacy.gov.au/publications/npps01.html#npp3>

The recommended process is to use a diagnosis from the drop down boxes provided in the clinical software. This is a coded diagnosis. If all clinical staff within the practice use the same codes to identify a diagnosis then it is much easier to search for particular diseases/conditions. This in turn makes it much simpler to develop chronic disease registers and generate recall and reminder lists. For example, practices may decide to code patients with diabetes with the following: Diabetes Type 1 or Diabetes Type 2 (current practice).

It is important to ensure that your coding is consistent and agreed upon by all clinical staff in the practice and that health concepts (e.g. diagnostic criteria for diabetes) are uniform.

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## Registers, Recalls & Reminders

### Definition of a Register

A patient register is a list of patients attending the practice for a particular demographic risk group or condition. Registers help you to:

- Systematically target patients in a particular group
- Flag when a preventive activity is offered and completed
- Identify those overdue for a preventive activity

### Definition of Recalls

Recalls are a proactive follow up to a preventive or clinical activity.  
(Please note that there are legal liability issues associated with Recalls).

### Definition of Reminders

Reminders are used to initiate prevention, before or during the patient visit. They can be either opportunistic or proactive.

*(RACGP, Putting prevention into practice Guidelines for the implementation of prevention in the general practice: 2nd Edition)*

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## Accreditation Requirements

### Criterion 1.3.1 Health Promotion and Preventative Care

*Our practice provides health promotion and illness prevention services that are based on best available evidence.*

### Criterion 3.1.1 Quality Improvement Activities

*Our Practice supports quality improvement activities*

### Simple Steps in Improving Quality of Data

Below are some helpful tips to guide you through the initial steps of data coding and management. This process is applicable to any practice wanting to improve their operational system(s) and provide better quality of healthcare to their patients.

Steps of Data Cleaning	What are the Benefits & Some Helpful Tips
<p><b>4. The How, Why and Who of Coding</b></p>	<ul style="list-style-type: none"> <li>▪ Knowledge of patients = identifying and knowing your target groups, being proactive rather than reactive in delivering health care</li> <li>▪ Ability to plan = opportunity to streamline clinical and business systems, limit missed income</li> <li>▪ Streamlined systems = greater efficiency</li> <li>▪ Greater efficiency = doing same work with less effort</li> <li>▪ Less effort = less strain in the workplace &amp; better outcomes</li> <li>▪ Provides clarity as to the roles of GPs, Practice Nurses and administrative staff in the process of improving data quality</li> </ul>
<p><b>5. General Coding</b></p> <p><b>5.1 Deciding on coding to use</b></p> <p><b>5.2 Clean up free text coding</b></p> <p><b>5.3 Search for un-coded patients</b></p> <p><b>5.4 Maintain and evaluate your coding process</b></p> <p><b>5.5 Practice Team Discussion Review</b></p>	<p>Coding a diagnosis means that you are using a code already provided in your medical software package instead of using free text (or un-coded) diagnosis.</p> <p>It is important to ensure that your health concepts (e.g. when is a patient a diabetic), terminology and coding is consistent and is agreed upon by all clinical staff in the practice.</p> <p>Convert existing free text to agreed coded diagnosis.</p> <p>Coding a diagnosis helps to determine accurately the number of patients with a specific disease under your care. Knowing this figure is very useful in planning and care of your patients.</p> <p>Searching for un-coded patients and coding them can increase the number of patients included in a condition register and improve the reach of prompts/reminders and recalls processes.</p> <p>Practices need to review their improvement processes to determine that the changes are working and continue to be effective.</p>
<p><b>6. Building a Disease Specific Register</b></p>	<p>A register is a list of patients with a specific condition and to this list can be added information on processes of care (e.g. attendance for annual cycle of care check) and outcome/target information such as HbA1c levels or cholesterol levels. This leads to enhanced patient care by having an accurate summary or overview of patients with specific conditions. It assists in determining gaps in care and sending recalls and prompting clinical staff via reminders.</p>

## Step 4: The How, Why and Who of Coding

***SEA-GP (Brisbane) will install a data extraction tool that will enable you to determine the current status of your database and to help you perform the following steps. This exercise will focus on coding for Diabetes and Coronary Heart Disease (CHD).***

### **Practice Action Steps:**

- Organise Practice Team Meeting
- Practice Team Discussion
- Communicate to the entire Practice Team the reasons to have consistent health concepts and coded diagnosis in place (*refer to page 3 for reasons*)
- Discuss the tally sheet results (data extraction information)
- Setting the ground rules:
  - Agree on health concept criteria and codes to use for diagnosis. Suggest using the code options available from the list in clinical software drop down boxes
  - Agree on a date to begin consistent coding (from this date do not use free text coding)
- Decide who will be responsible for:
  - Cleaning up existing free text coding (*refer to step 5.2*)
  - Searching for and coding un-coded patients (*refer to step 5.3*)
  - Monitoring and maintaining the coding process (*refer to step 5.4*)
- Practice Team Discussion Review
  - Evaluate your processes and outcomes
  - Discuss any learning and necessary improvements
  - Document entire process in the policy and procedures manual, including roles and responsibilities described in position descriptions

## Step 5: General Coding

### Practice Action Steps:

**Please Note: It is recommended that you do a backup before undertaking any of these steps**

#### 5.1 Implement agreed coded diagnosis:

- Ensure agreed codes are present or else entered into your medical software by (nominated person) before the agreed on start date
- Provide a list of agreed codes to each GP and relevant staff member
- Remind each GP and relevant staff members, the agreed on start date
- Block off access to non-agreed codes (system administrators can do this in some clinical software)
- From the agreed date, do not use free text coding

#### 5.2 Clean up free text coding:

- Go into the clinical software maintenance area (e.g. MD Maintenance, or BP Lists Clean Up)
  - Link free text diagnosis to a coded diagnosis and convert
  - Repeat until the free text diagnosis area is empty
- Where free text diagnosis is unclear or ambiguous, note the patient and clinically follow up in their respective records

#### 5.3 Search for and code un-coded patients:

- Un-coded patients can be identified by:
  - Clinical software searches (e.g. medications, test results, related conditions)
  - Opportunistically (checking diagnosis is recorded and entered as a coded entry)
  - Target groups with Risk Assessment Tools (e.g. Absolute Risk, AUSDRISK, COPD - CAT)
  - Request lists from Pathology Providers of specific pathology tests (e.g. HbA1c)
  - Search for Medicare items claimed (e.g. Diabetes Annual Cycle of Care)
- Open patient records, confirm diagnosis and code where appropriate

***Each practice is different, therefore it is important to consider which of these options would work best in your practice to maximise outcomes and minimise time expended***

#### 5.4 Evaluate and maintain the coding process:

- Confirm that all GPs and clinical staff are using the correct codes for diagnosis
- Agree on a process to ensure data quality is maintained
  - How often will you check your coding processes
  - How often will you bring this to your team meetings
  - How often will you check the coding process remains consistent
- Document entire process in policy and procedure manual, including roles and responsibilities described in position descriptions and ensure that this is brought to the attention of all new staff

## Step 6: Building a Disease / Condition Specific Register

The practice is now in a position to establish specific disease/condition registers. Some examples of these are:

- Diabetes
- Coronary Heart Disease
- Chronic Obstructive Pulmonary Disease
- Asthma
- PAP

Having these registers makes it very simple to manage recalls and reminders. The practice may wish to focus on one disease or condition area at a time; however the principles are the same for each register.

**Please Note:**

- 1. Whenever using the extraction tool, it is best done when your clinical software is not being used on other workstations**
- 2. Some of these steps may require some time to complete depending on the number of patients and/or free text entries in your database**
- 3. Many practices extend these activities over a period of time to better manage the tasks involved and to spread the work load**

**Disclaimer:** Whilst every effort is made to ensure accuracy, SEA-GP (Brisbane) does not accept any liability for any injury, loss or damage incurred by or reliance on the information contained within this information sheet.

<sup>\*, 2 & 3</sup> Australian Primary Care Collaboratives. *Measurement, Measuring for improvement, Where to start*. Retrieved 5 June 2009  
[http://www.apcc.org.au/Reports/getting\\_started.htm](http://www.apcc.org.au/Reports/getting_started.htm)