## 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[1]. 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'.

## 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*)
5. Provide an accurate, timely and complete narrative on the patient's/client's health processes and services
6. To allow review of clinical processes, decision making and management for teaching purposes
7. To facilitate evaluations of clinical processes and outcomes (e.g. diabetes cycle of care and target achievement)
8. To assist with answering research questions

* 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

## Simple Steps to Improving Quality of Data

Below are some helpful tips to guide you through the initial steps of data cleaning and management.

| Steps of Data Cleaning | What are the benefits |
|---|---|
| **1. The How, Why and Who of Data Cleaning** | ▪ Knowledge of patients = ability to plan healthcare delivery, instead of being reactive<br>▪ Ability to plan = opportunity to streamline clinical and business systems, limit missed income<br>▪ Streamlined systems = greater efficiency<br>▪ Greater efficiency = doing same work with less effort<br>▪ Less effort = less strain in the workplace |
| **2. General Data Cleaning**<br>**2.1. Inactivating patients**<br>**2.2. Set patient records with no clinical data to inactive**<br>**2.3. Remove sample patient records (if appropriate)**<br>**2.4. Minimise tutorial patient records**<br>**2.5. Assign gender to all patient records**<br>**2.6. Mark patient records as deceased** | General Data Cleaning helps to accurately determine the number of patients under your care. Knowing this figure is very useful in business planning. Inactivating also prevents patient records appearing in reports and skewing the numbers. Inactivated records can be easily recovered in future should this be required[2].<br>From experience with improving data quality in practice databases, the most significant gains are found in determining which patients are "active" patients of the practice. If this has never been done before, this step usually reduces the number of active patients on a register by around 20%. |
| **3. Receive Pathology Results in HL7 Format**<br>**3.1 Contact Pathology Provider(s) to have your results sent in HL7 format.** | HL7 is a format for the transfer of electronic results to your practice. It replaces the older PIT format. The advantage of HL7 results is once incoming results have been reviewed, a copy of its contents is distributed throughout the patient's record. The result is then able to be included in a search. In other words, if a result contains a HbA1c value, it is automatically placed in the correct field in the patient's diabetic record. It saves you the trouble of manually transferring the result value to the correct place in the patient notes.[3] |

This process is applicable to any practice wanting to improve their operational system(s) and provide better quality of healthcare to their patients.

## Step 1: The How, Why and Who of Data Cleaning

**Practice Action Steps:**

- ❑ Organise Practice Team Meeting
- ❑ Practice Team Discussion
  - ❑ Communicate to the Practice Team the reasons to have quality patient data
  - ❑ Setting the ground rules:
    - ❑ Agree on a "cut-off" date for inactivating patient records (e.g. not seen for 3 years)
    - ❑ Agree on the process for cleaning your database
    - ❑ Agree on team approach to data cleaning (e.g. who is responsible for data cleaning activities and ensuring backups are current.)
    - ❑ Agree on when this will be done (time of the day) and possibly allocate protected time to the staff member/s if necessary
- ❑ Practice Team Discussion Review (following completion of initial data cleaning)
  - ❑ Evaluate your processes and outcomes
  - ❑ Agree on a process to ensure that data quality is maintained (e.g. how often will you inactive your patient records?)
  - ❑ Document entire process in policy and procedure manual, including roles and responsibilities described in position descriptions

## Step 2: General Data Cleaning

**Practice Action Steps:**
***NB: It is recommended that you do a backup before undertaking any of these steps!***

**2.1 Inactivate patients who have not attended the Practice for the stipulated period of time as agreed by the Practice (e.g. not seen for 3 years).**

- ❑ Inactivate patients who have not attended the Practice for a stipulated period as agreed by the Practice (e.g. not seen for 3 years). Remember these patients may be reactivated if required.
- ❑ Ensure processes are in place for reception staff to:
  - ❑ Ask patients if they have attended the Practice before if they do not appear on the database
  - ❑ Know how to're-activate' inactive patients on the database if needed.

**2.2 Set patient records with no clinical data to inactive**

- ❑ Make inactive those patients with no clinical notes. Remember that they can be re-activated again as required.

## Step 2: General Data Cleaning (continued)

### 2.3 Remove sample patient records (if appropriate)

- ❑ Sample patient records are automatically installed in Medical Director 2. There is a "remove samples" utility which will remove these records.

### 2.4 Minimise the number of test patient records

- ❑ Minimise tutorial patient records in clinical software. This needs to be decided as a team and you may want to create one family of test patients for everyone to use.

### 2.5 Assign gender to all patient records

- ❑ Assign a gender to all patient records if gender is missing in your demographic summary. This utility will only be effective if the patient title is already entered. If it is not entered then you may need to decide on a process for reviewing title (e.g. get reception staff to check data when patients attend the practice).

### 2.6 Mark patient records as deceased

- ❑ Devise a strategy for receiving information about deceased patients (e.g. regularly check newspapers, contact local funeral director/s once per month for deceased patients)
- ❑ Decide who is to be responsible for updating data
- ❑ Ensure patients are marked as deceased in the clinical software when notified.

**Document process for inclusion in Policies and Procedures Manual**

***NB: Some of these steps may require some time to complete depending on the number of patients in your database. These steps need to be done when your clinical software is not being used on any other workstations.***

## Step 3: Receive Pathology Results in HL7 Format

**Practice Action Steps:**

- ❑ Contact your Pathology Provider(s) and request results to be sent in HL7 format.



[1, 2 & 3] Australian Primary Care Collaboratives. *Measurement, Measuring for improvement, Where to start.* Retrieved 5 June 2009 http://www.apcc.org.au/Reports/getting_started.htm