Clinical Data Auditing Activities Focusing on High Risk Patients

Excerpts from the data cleansing manuals of the Sentinel Practices Data Sourcing (SPDS) project

Acknowledgment:

The data cleansing activities and instructions included in this document are excerpts from the *Sentinel Practices Data Cleansing Manual* and the current and/or future *Supplements to the Sentinel Practices Data Cleansing Manual* which are primary care clinical auditing tools respectively, conceptualised and drafted by the project team of the *Sentinel Practices Data Sourcing (SPDS) project*. This project is an innovative population health and primary care quality improvement based investigation into chronic conditions and associated risk factors conducted by COORDINARE – South Eastern NSW PHN.

While formal release of the SPDS supplementary manuals (additional instruction guides for advanced clinical auditing) will be undertaken in the near future, this excerpt document has all auditing activities from the SPDS project and has been prepared to assist COORDINARE's initiatives to assist general practices in providing optimal care to the most vulnerable cohort of patients during the specific periods of risk such as winter months of any given year or during times of infectious epidemics/pandemics such as the 2020 Covid-19 pandemic where there is significant likelihood of rising infections for vulnerable cohorts of the population. Activities in this excerpt aim to identify patients who can be most at risk of poor health outcomes during certain periods of high community risk of infections and assist to create lists of such vulnerable cohorts of patients. These lists can then facilitate targeted and optimal patient follow-up by clinicians and general practice staff with an ultimate goal of managing any related hospitalisations and/ or exacerbation of their existing chronic conditions.

It should be noted that these activities are only applicable to practices currently partaking in the SPDS project and thereby have the PenCS CAT4 tool[A] installed on their practice systems. Secondary use of any and all information included in this document requires appropriate citation/acknowledgement of the SPDS project and its affiliated personnel and organisation.

Lastly a pre-requisite to accurately and meaningfully undertake these activities is the completion of the *Basic Level Data Cleansing & Initial Clinical Audit* as per the SPDS project's data cleansing manual. If this has not been achieved, then activities below are likely to reveal less meaningful results than anticipated. If your practice is not a current participant of the SPDS project and you would like more information about it, please contact your COORDINARE Health Coordination Consultant.

Suggested Citation: Ghosh A 2020.*Clinical Data Auditing Activities Focusing on High Risk Patients: Excerpts from the Data Cleansing Manuals of the Sentinel Practices Data Sourcing (SPDS) project,* COORDINARE - South Eastern NSW PHN, Wollongong NSW.

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Contents

[A] All activities are aimed for practices partaking in the Sentinel Practices Data Sourcing (SPDS) project that have PenCS CAT4 installed on their systems

PATIENTS WITH CHRONIC CONDITIONS

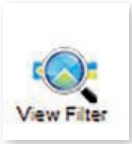
WHO HAVE NOT BEEN IMMUNISED AGAINST INFLUENZA IN THE LAST TWELVE MONTHS

1. PATIENTS WITH CHRONIC CONDITIONS WHO HAVE NOT BEEN IMMUNISED AGAINST INFLUENZA IN THE LAST TWELVE MONTHS

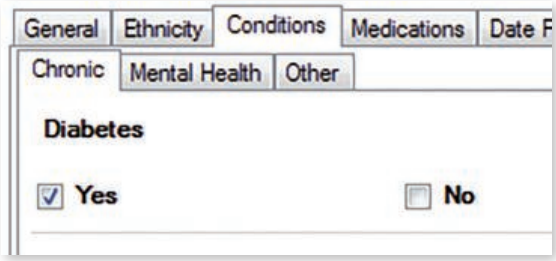
1.1. Specific chronic conditions

1.1.1. Diabetes

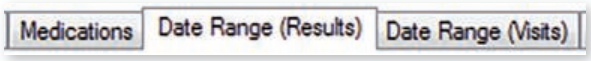
1. Click on View Filter



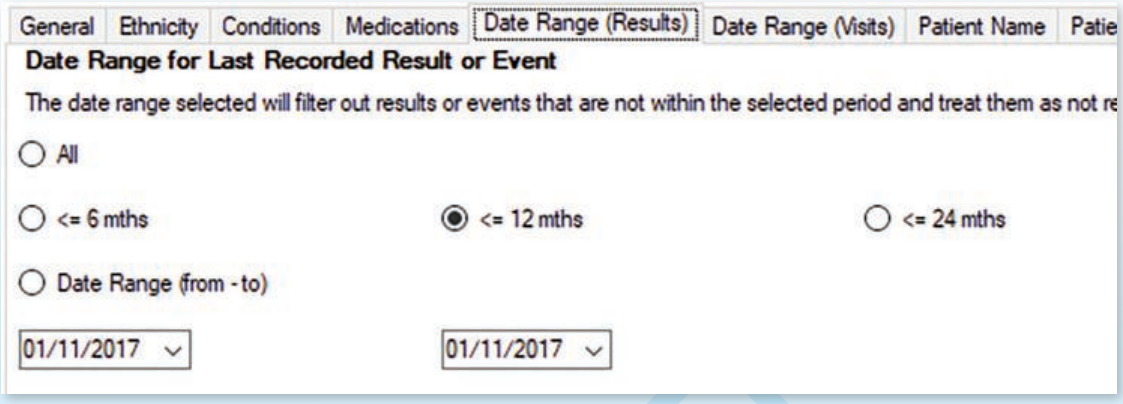
2. Under the Conditions section of the **Filter area** go to the sub-tab that says Chronic and select Yes for Diabetes



3. Click on the Date range (Results) section



4. Tick "<= 12 mths"

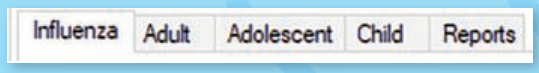


5. Click on the Recalculate button located on the right upper corner of PenCS CAT screen

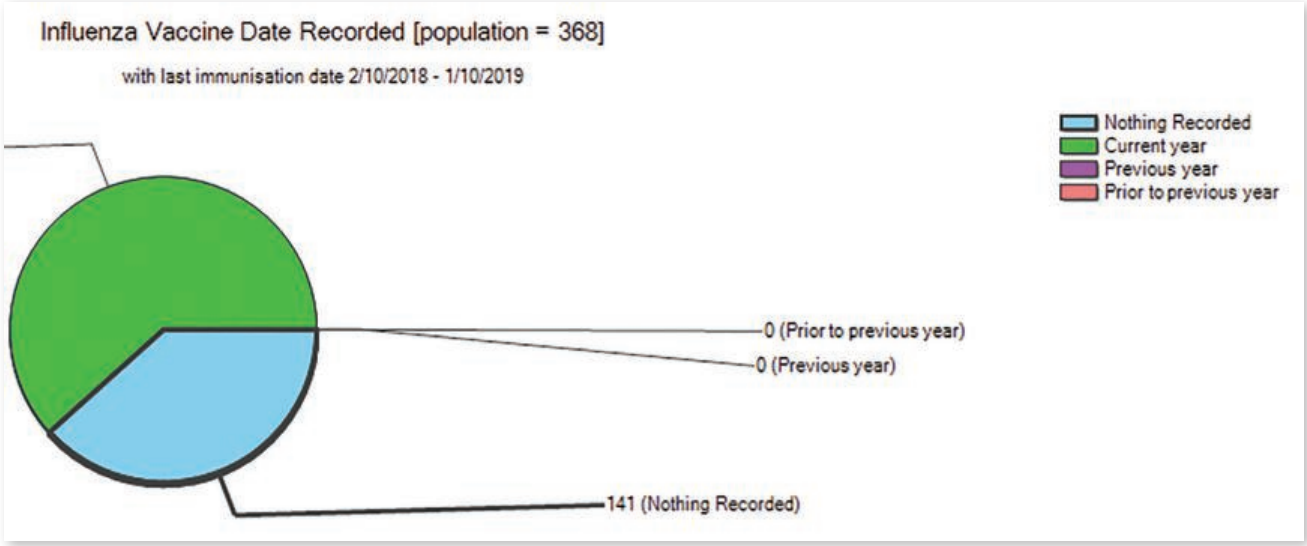
6. Now all charts in the **Reports section** below will only display information for patients that have a coded diagnosis of any form of diabetes on their electronic health records and have had results or events recorded in the last 12 months

7. In the **Reports section** click on the tab that says Immunisations

8. Click on the sub-tab that says Influenza

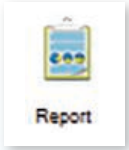


9. The chart below displays your data as a breakdown of Influenza vaccination status of all diabetic patients for the last 12 months



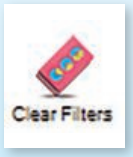
10. Click on the segment of the pie chart that says Nothing Recorded

11. Click on Report

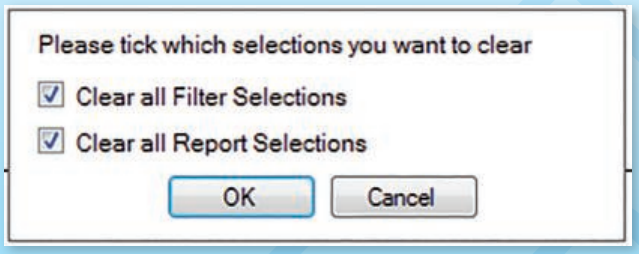


12. This will show up the list of these patients which can be printed out or saved and then reviewed on the patients' individual records on your **Electronic Medical Record (EMR) software**

13. Click on Clear Filters button located near the right upper corner of PenCS CAT screen



14. Select clear all filter selections and clear all report selections on the pop-up and click OK



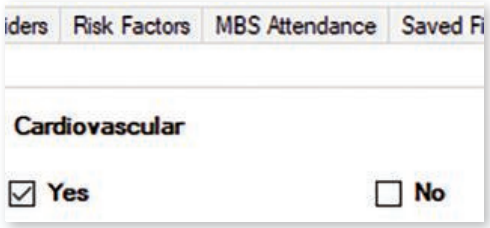
The same activity can be undertaken for other chronic condition groups as outlined below

1.1.2. Respiratory conditions

All steps are exactly the same as the steps in **part 1.1.1.** of the activity outlined above, except for step 2. For this activity in step 2 under the Conditions section of the **Filter area** go to the sub-tab that says Chronic and select Yes for Respiratory

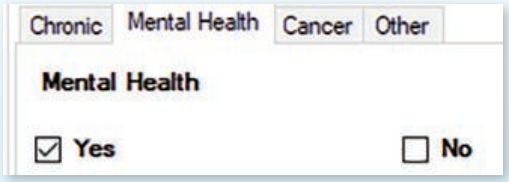
1.1.3. Cardiovascular conditions

All steps are exactly the same as the steps in **part 1.1.1.** of the activity outlined above, except for step 2. For this activity in step 2 under the Conditions section of the **Filter area** go to the sub-tab that says Chronic and select Yes for Cardiovascular



1.1.4. Mental health conditions

All steps are exactly the same as the steps in **part 1.1.1.** of the activity outlined above, except for step 2. For this activity in step 2 under the Conditions section of the **Filter area** go to the sub-tab that says Mental Health and select Yes for Mental Health



All the aforementioned specific condition-based activities should be undertaken for a couple of key patient population cohorts as outlined below

1.2. Specific patient population cohorts

1.2.1. Aged 65 years and over

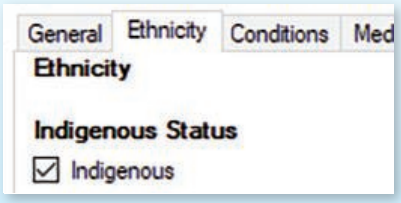
All steps are exactly the same as the steps in **part 1.1.1.** of the activity outlined above, with an additional step before running step 5. Before running step 5, go the **Filter area** and go to the sub-tab that says General and under the Age section select the button Yrs and set the Start Age = 65 and the End Age = 120

1.2.2. Aboriginal and/or Torres Strait Islander patients aged 55 years and over

All steps are exactly the same as the steps in **part 1.1.1.** of the activity outlined above, with a couple of additional steps before running step 5. Before running step 5: -

- go the **Filter area** and go to the sub-tab that says General and under the Age section select the button Yrs and set the Start Age = 55 and the End Age = 120

- and then go to Ethnicity section of the **Filter area** and select Indigenous



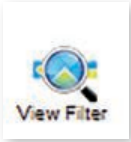
For activity number 1 including all its sub-activities mentioned in sections 1.1 and section 1.2; actions as per the Additional Tip are applicable as an optional supplement

PATIENTS AGED 15 YEARS AND OVER WHO HAVE MULTIPLE CHRONIC CONDITIONS

WHO HAVE NOT BEEN IMMUNISED FOR INFLUENZA IN THE LAST TWELVE MONTHS

2. PATIENTS AGED 15 YEARS AND OVER WHO HAVE MULTIPLE CHRONIC CONDITIONS AND WHO HAVE NOT BEEN IMMUNISED AGAINST INFLUENZA IN THE LAST TWELVE MONTHS

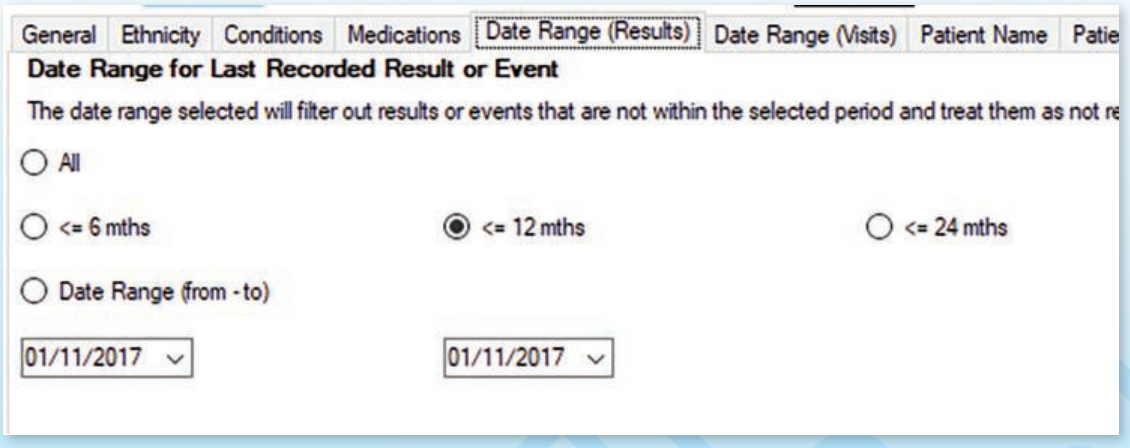
1. Click on View Filter



2. In the Age section of the **Filter area** select the button Yrs and set the Start Age = 15 and the End Age = 120

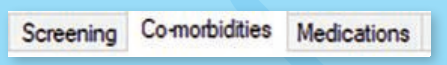
3. Click on the Date Range (Results) section of the **Filter area**

4. Tick "<= 12 mths"

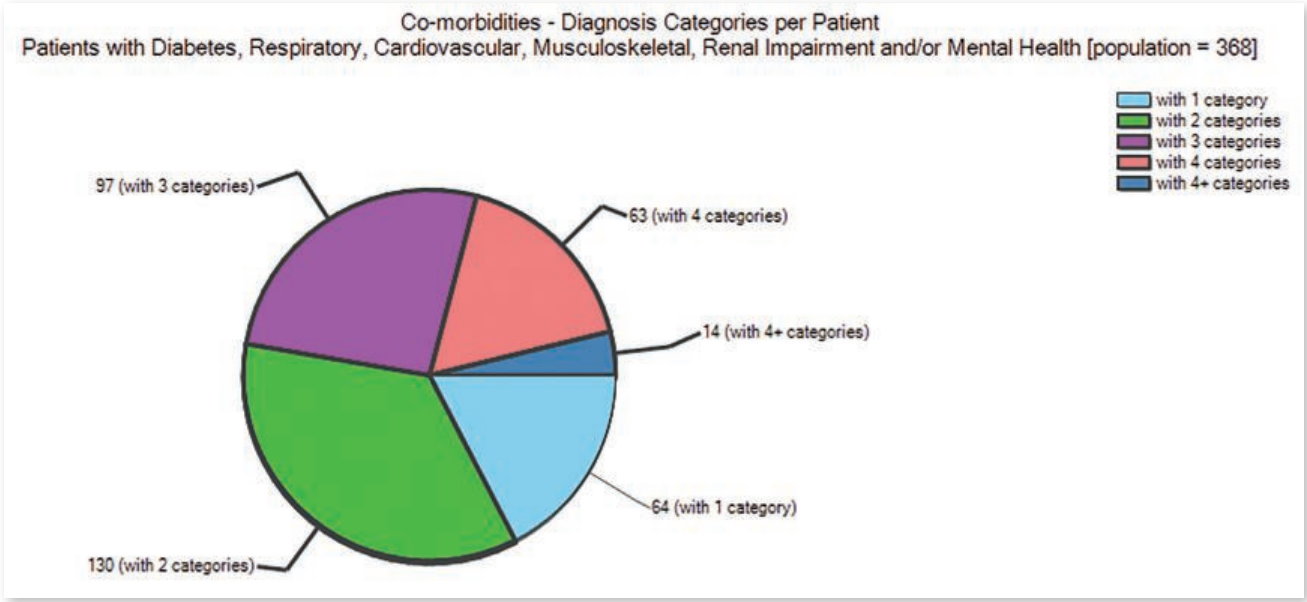


5. Click on the Recalculate button located on the right upper corner of PenCS CAT screen

6. In the **Reports section** go to the tab that says Co-morbidities

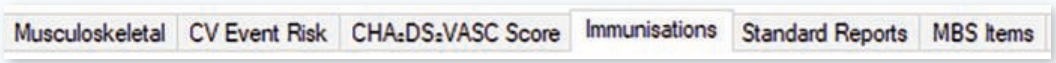


7. The chart below displays your data as a breakdown of the number of patients with the respective number of chronic condition categories as per the coded diagnosis and past history items on their electronic health records

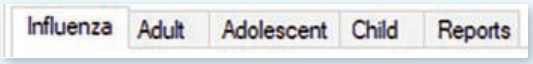


8. Click on the segment of the pie chart that says with 2 categories, the section that says 3 categories, the section that says with 4 categories and the section that says 4+ categories

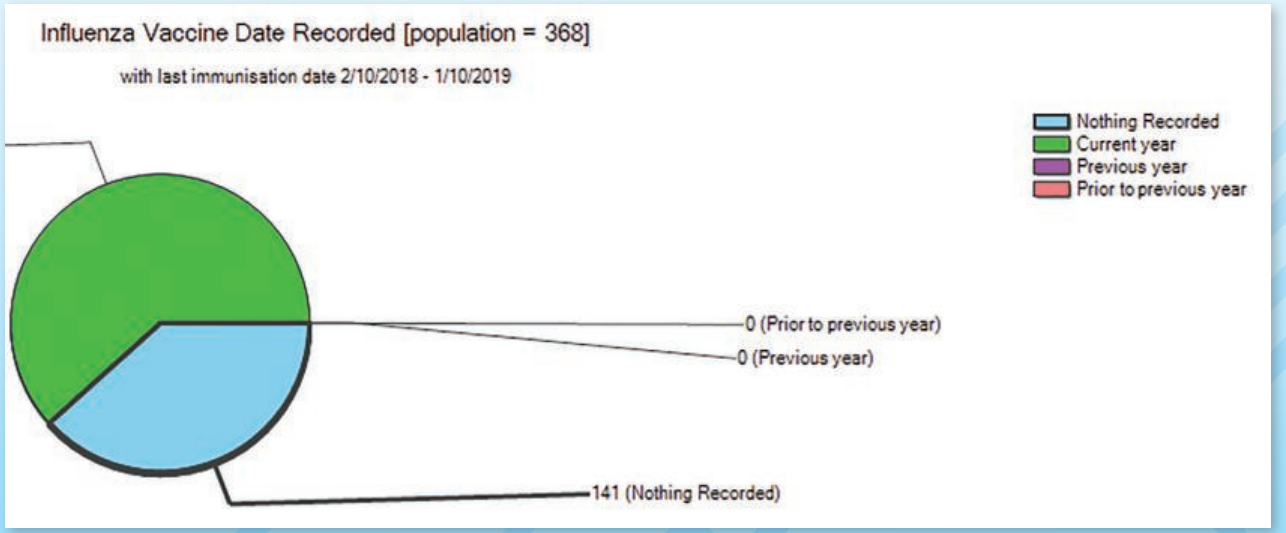
9. With this selection done (keep it selected), within the **Reports section** click on the tab that says Immunisations



10. Click on the sub-tab that says Influenza

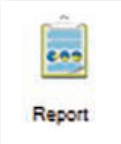


11. The chart below displays your data as a breakdown of Influenza vaccination status of all patients for the last 12 months



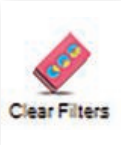
12. Click on the segment of the pie chart that says Nothing Recorded

13. Click on Report

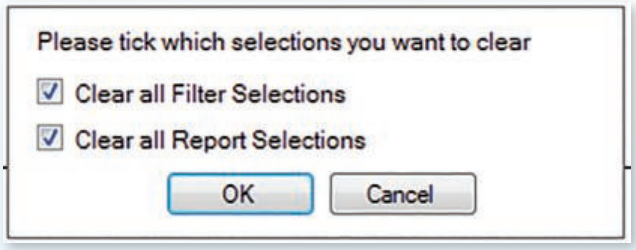


14. This will show up the list of these patients which can be printed out or saved and then reviewed on the patients' individual records on your **Electronic Medical Record (EMR) software**

15. Click on Clear Filters button located near the right upper corner of PenCS CAT screen



16. Select clear all filter selections and clear all report selections on the pop-up and click OK



17. Now you are ready to run the next data cleansing activity

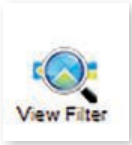
For activity number 2; actions as per the Additional Tip are applicable as an optional supplement

PATIENTS AGED 15 YEARS AND OVER WHO ARE ON MULTIPLE MEDICATIONS

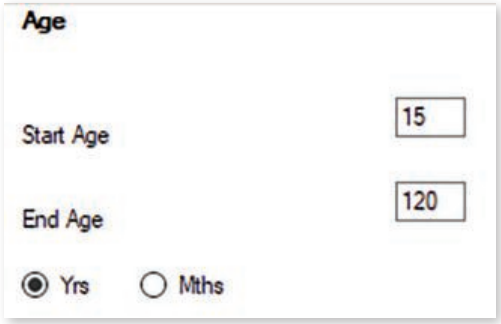
AND WHO HAVE NOT BEEN IMMUNISED AGAINST INFLUENZA IN THE LAST TWELVE MONTHS

3. PATIENTS AGED 15 YEARS AND OVER WHO ARE ON MULTIPLE MEDICATIONS AND WHO HAVE NOT BEEN IMMUNISED AGAINST INFLUENZA IN THE LAST TWELVE MONTHS

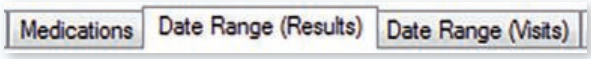
1. Click on View Filter



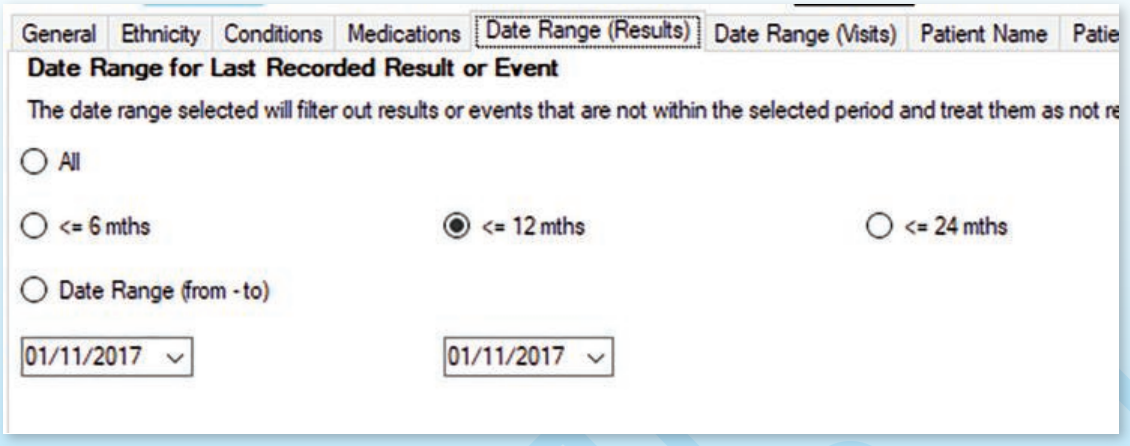
2. In the Age section of the **Filter area** select the button Yrs and set the Start Age = 15 and the End Age = 120



3. Click on the Date Range (Results) section of the **Filter area**

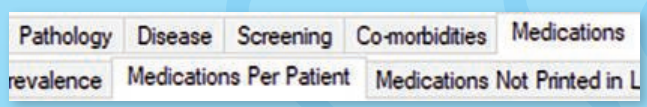


4. Tick "<= 12 mths"

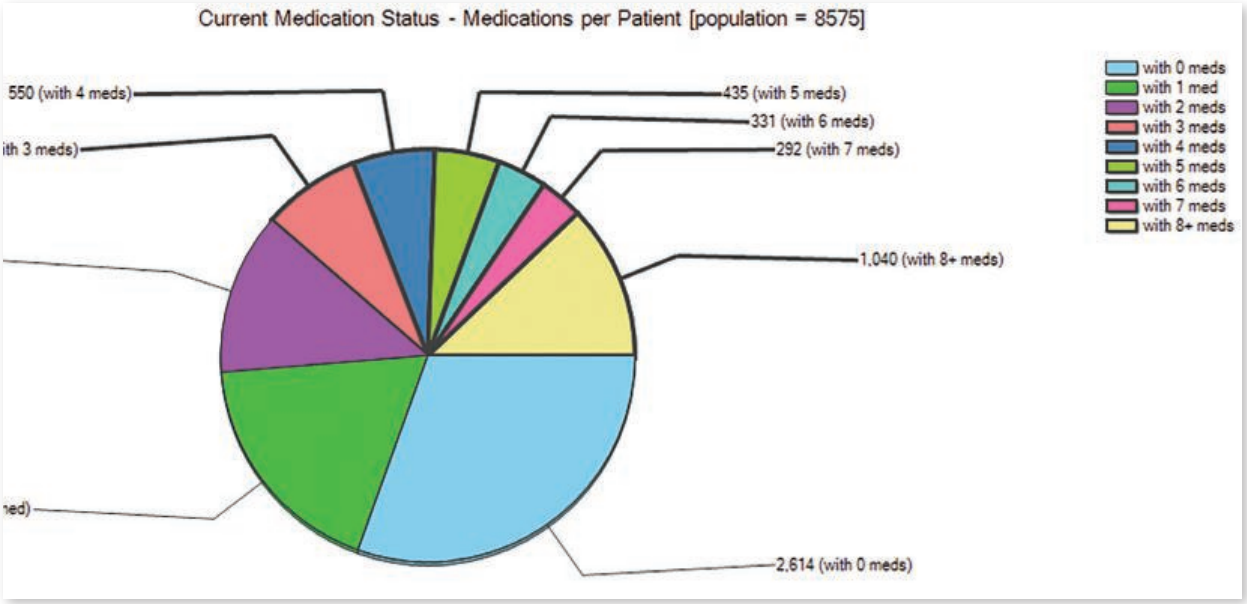


5. Click on the Recalculate button located on the right upper corner of PenCS CAT screen

6. In the **Reports section** go to the tab that says Medications go to the sub-tab that says Medications Per Patient



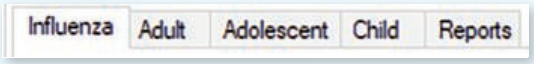
7. The chart below displays your data as a breakdown of the number of patients with the respective number of medications as per the prescription records on their electronic health records



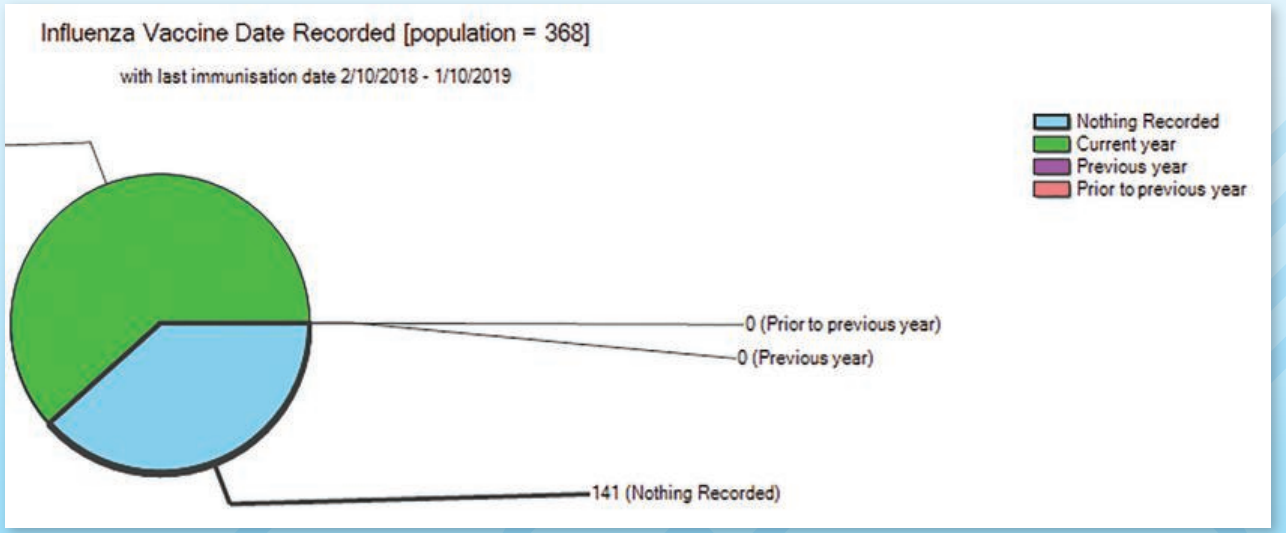
8. Click on the segments of the pie chart that have 3 or more meds i.e. the ones that say - with 3 meds, with 4 meds, with 4 meds, with 5 meds, with 6 meds, with 7 meds and with 8+ meds

9. With this selection done (keep it selected), within the **Reports section** click on the tab that says Immunisations

10. Click on the sub-tab that says Influenza

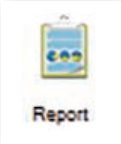


11. The chart below displays your data as a breakdown of Influenza vaccination status of all patients for the last 12 months



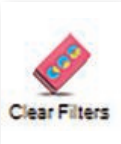
12. Click on the segment of the pie chart that says Nothing Recorded

13. Click on Report

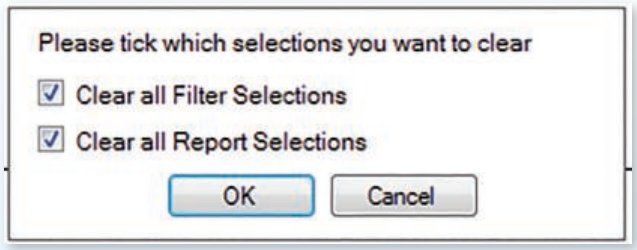


14. This will show up the list of these patients which can be printed out or saved and then reviewed on the patients' individual records on your **Electronic Medical Record (EMR) software**

15. Click on Clear Filters button located near the right upper corner of PenCS CAT screen



16. Select clear all filter selections and clear all report selections on the pop-up and click OK



17. Now you are ready to run the next data cleansing activity

PATIENTS WITH OUTSTANDING DIABETES ANNUAL CYCLE OF CARE ITEMS

4. PATIENTS WITH OUTSTANDING DIABETES ANNUAL CYCLE OF CARE ITEMS

An annual “cycle of care” must be completed for each diabetic patient, based on RACGP and Diabetes Australia guidelinesB. Apart from the usual consultative inclusions of - providing self-care education on managing diabetes; reviewing diet and encouraging good dietary choices; reviewing medications; reviewing levels of physical activity and encouraging good levels of physical activity; and checking smoking status and encouraging smoking cessation (if relevant) which are recommended to be done as required; the cycle also includes identified checks/examinations that need to be entered as distinct data into the electronic records of the patient. These include: -

Data items for Diabetes Annual Cycle of Care*	Frequency of checking and entering into electronic patient records
Measured blood pressure	6 monthly so twice in last 12 months
Measured HbA1c level	once in last 12 months
Comprehensive eye examination	once in last 24 months
Measured height and weight for BMI calculation	6 monthly so twice in last 12 months
Measured total cholesterol	once in last 12 months
Measured total triglycerides	once in last 12 months
Measured HDL cholesterol	once in last 12 months
Test for microalbuminuria	once in last 12 months
Comprehensive foot examination	6 monthly so twice in last 12 months
Measured eGFR	once in last 12 months
Review of smoking status	once in last 12 months
Review of current medications	once in last 12 months

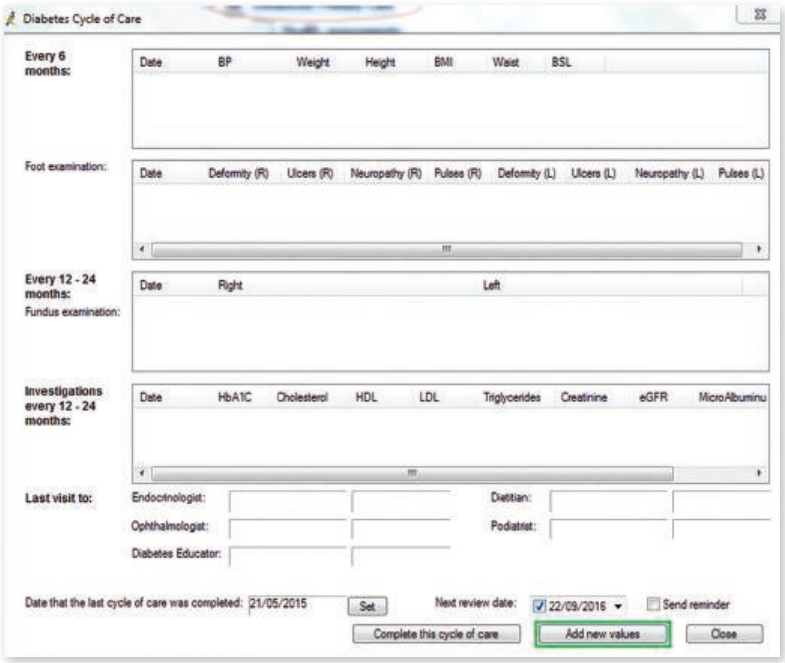
** Additionally PenCS CAT also checks for a recorded smoking status for the patient*

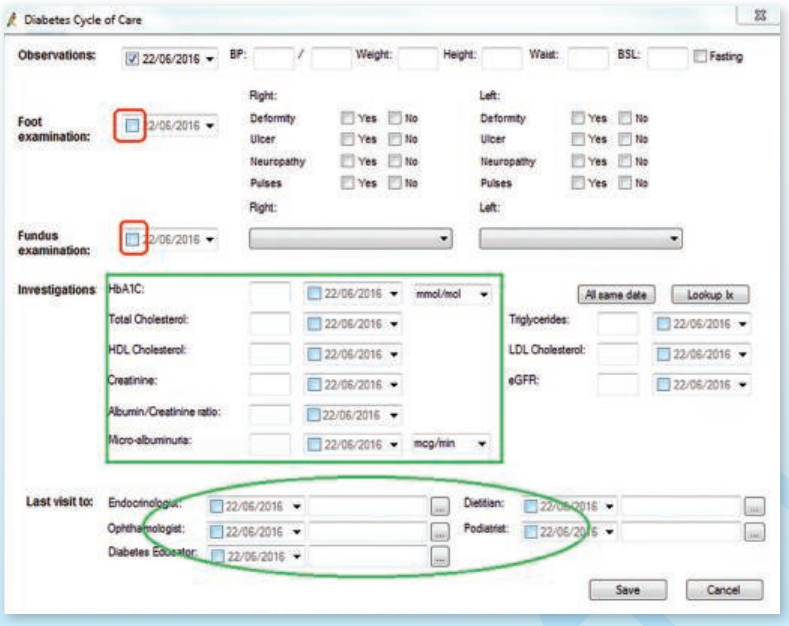
These items need to be entered in the correct sections of the EMR for accurate patient follow-up and clinical information auditing that enable the generation of appropriate recalls and reminder lists.

In **Best Practice EMR** these items exist under the Enhanced Primary Care section

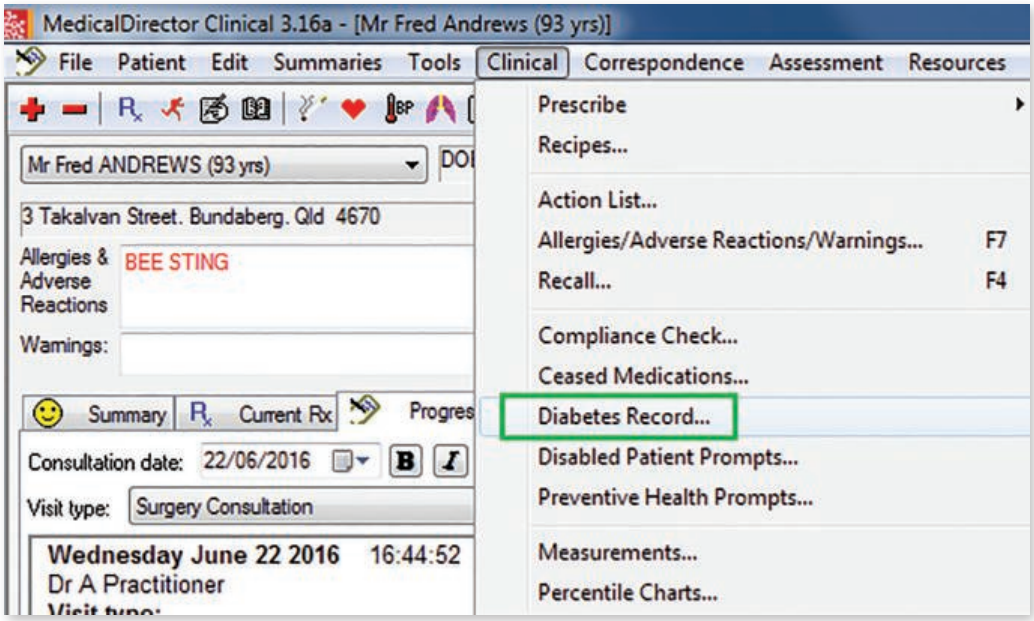
B https://www.ndss.com.au/your-diabetes-annual-cycle-of-care

Under this section clicking on the Current button opens up the **Diabetes Annual Cycle of Care** box wherein a practitioner should add values and findings electronically by clicking on the button Add new values

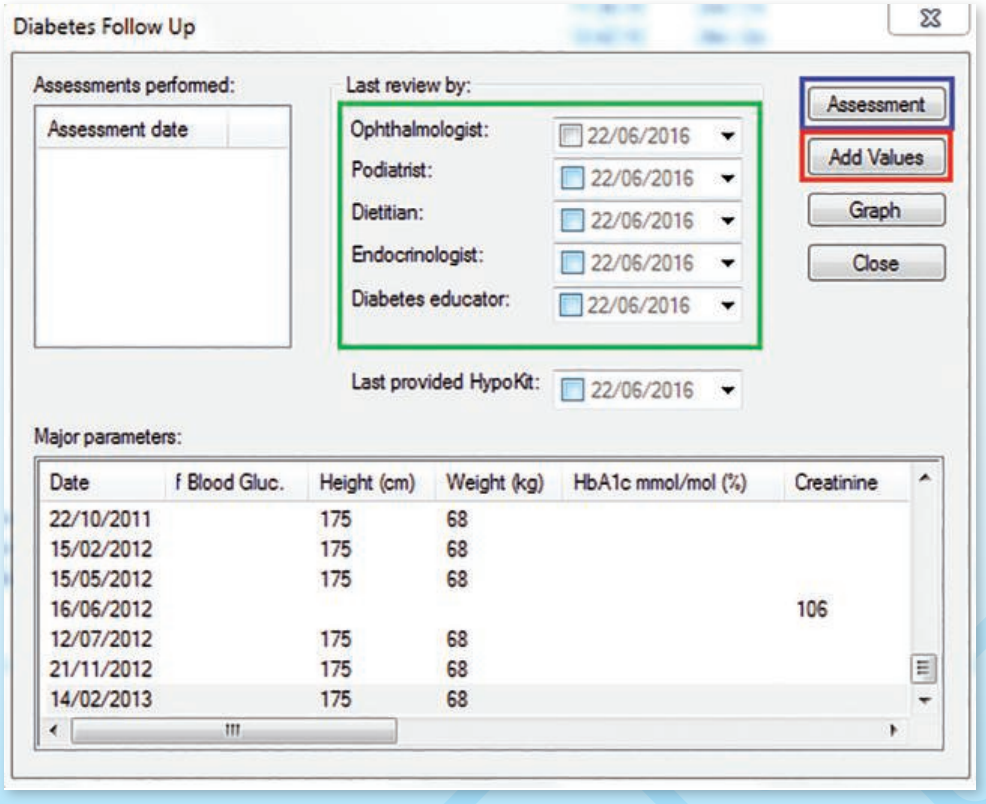




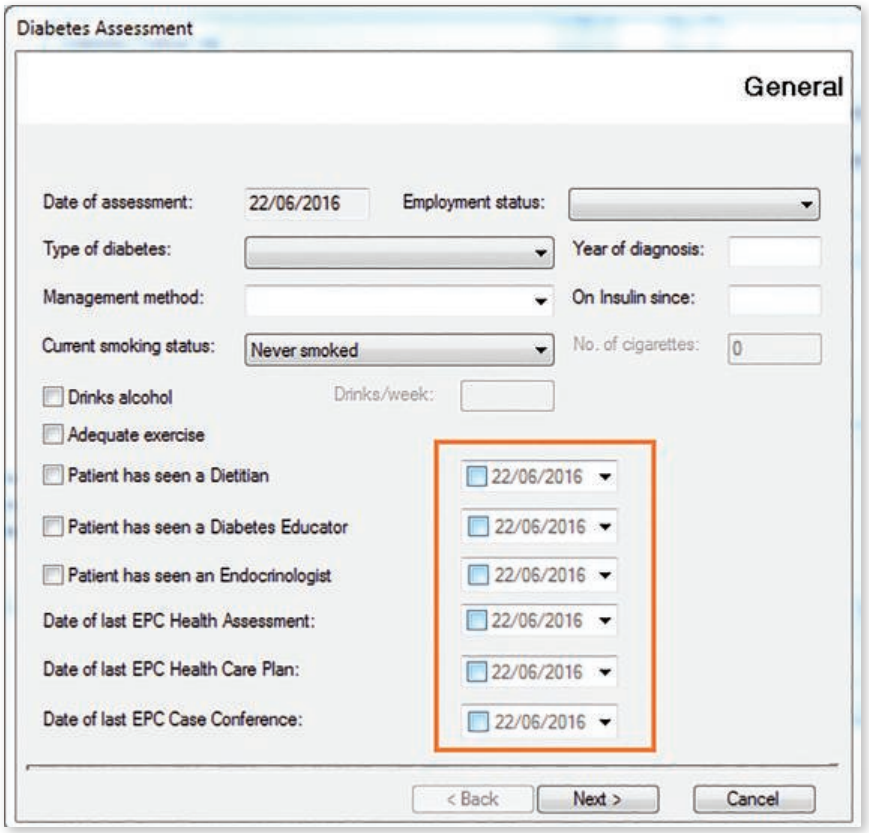
In **Medical Director EMR**, click on the Clinical button on the top and select the Diabetes record



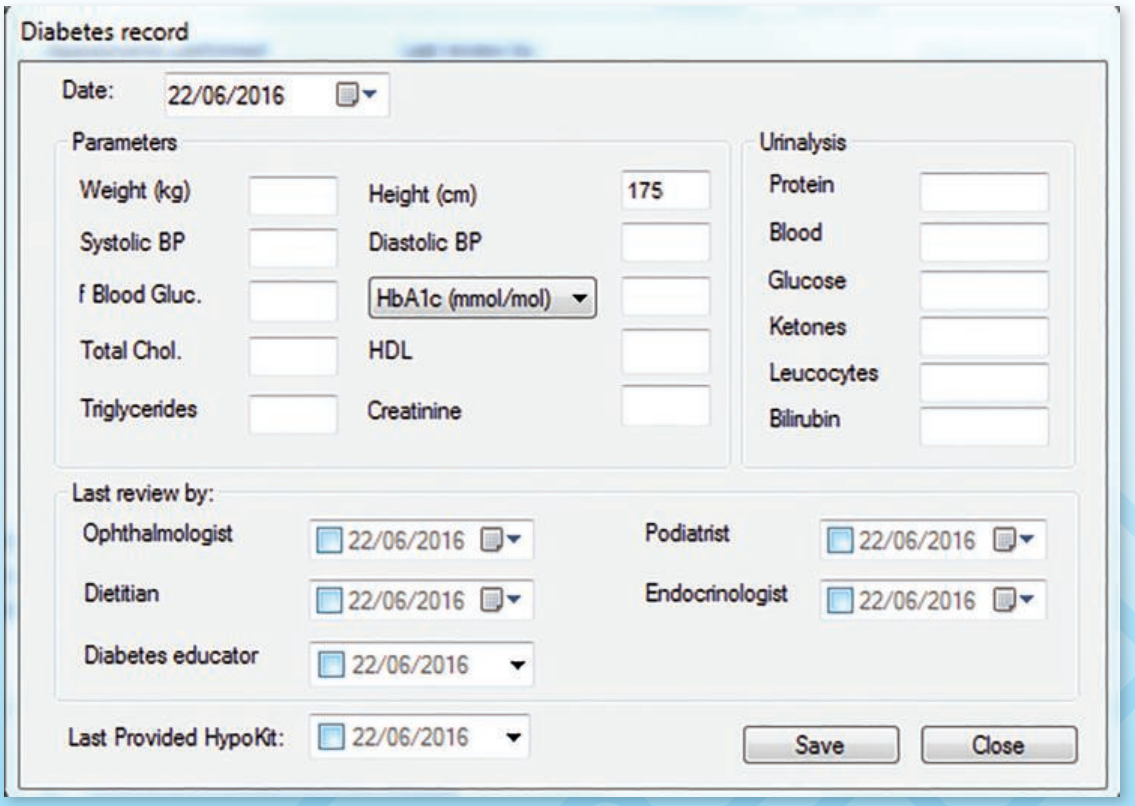
Then the **Diabetes Follow Up** window shows up where all the information needs to be entered.



Either click on the **Assessment** button and undertake the entire Diabetes Annual Cycle of Care assessment step-by-step with each component if you have all reports and details available



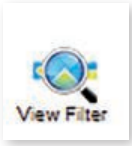
OR click on the **Add Values** button to directly add investigation and measured values



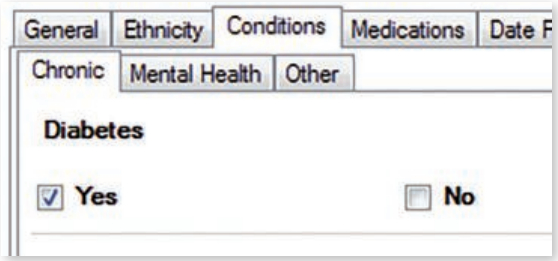
All the above highlighted entries should be filled in to the EMR and only then can PenCS CAT and the EMR query tools be able to report on them and enable the generation of accurate recalls and reminders.

To identify which data item is missing for which Diabetic patient: -

1. Click on View Filter



2. Under the Conditions section of the **Filter area** go to the sub-tab that says Chronic and select Yes for Diabetes

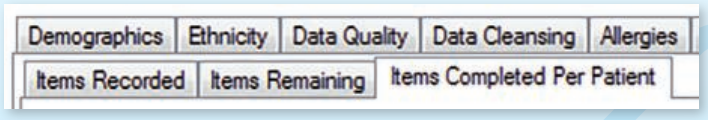


3. Click on the Recalculate button located on the right upper corner of PenCS CAT screen

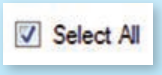
4. All charts in the **Reports section** below will display information for patients that have a coded diagnosis of any form of diabetes on their electronic health records

5. In the **Reports section** below click on the tab that says Diabetes SIP Items

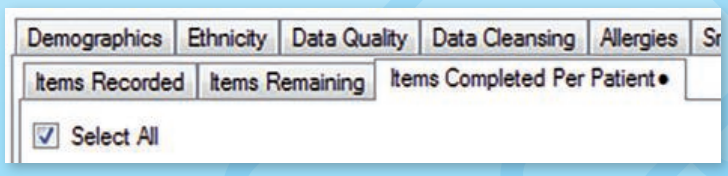
6. Go to the sub-tab that says Items Completed Per Patient



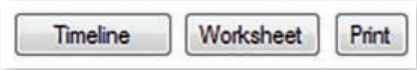
7. Check the Select all box located just above the chart on the left side



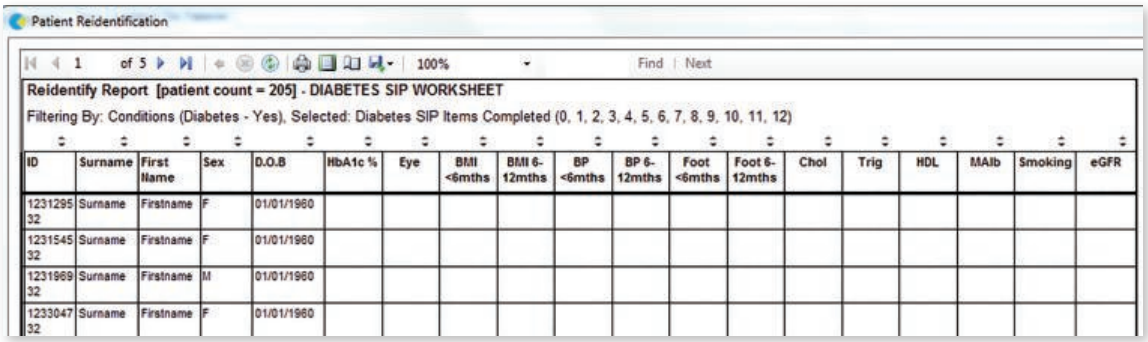
8. Once selected you will notice all bars of the chart below selected and the sub-tab that says Items Completed Per Patient has a dot (•) on it indicating that sections of the chart corresponding to that tab/sub-tab have been selected



9. Then click the Worksheet button located just above the chart on the right side

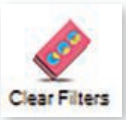


10. You will now get a patient re-identification list with the names of all patients in your practice that have a coded diagnosis of diabetes along with tabulated lists identifying which particular annual cycle of care item needs to be reviewed for the respective patients

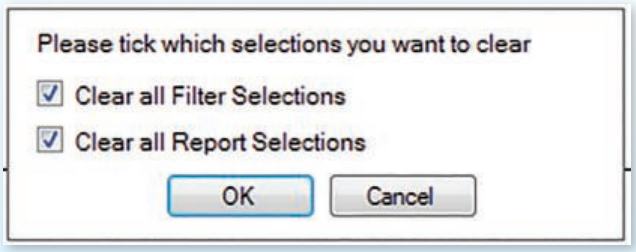


11. This list can be printed or saved and then reviewed on the patients' individual records on your EMR software

12. Click on Clear Filters button located near the right upper corner of PenCS CAT screen



13. Select clear all filter selections and clear all report selections on the pop-up and click OK



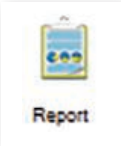
14. Now you are ready to run the next data cleansing activity

For activity number 4; actions as per the Additional Tip are applicable as an optional supplement

ADDITIONAL TIP

Co-selection of reports (Cross-tabulation)[c] based on patients who have not had a chronic disease management GP care plan in the last twelve months

For all activities above that include one or several specific chronic conditions, an additional selection can be undertaken through a few additional steps as outlined below. All filters and selections are exactly the same as per the steps mentioned within the respective activities above; but just before the step that says **Click on Report**

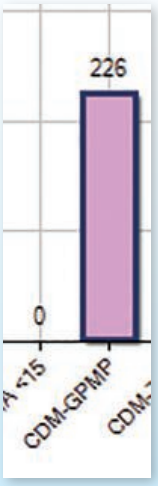


run the following steps. With all previous selections done (keep them selected): -

- In the **Reports section** go to the tab that says MBS Items

- Then go to the sub-tab that says Not Recorded

- Select the bar whose axis title says CDM-GPMP



[c] This technique has been introduced in the Basic Level Data Cleansing & Initial Clinical Audit as per the Tips and Tricks section of Sentinel Practices Data Cleansing Manuals. Please refer to those manual/s to understand this technique further.