

Data Quality (CDSA)

Overview

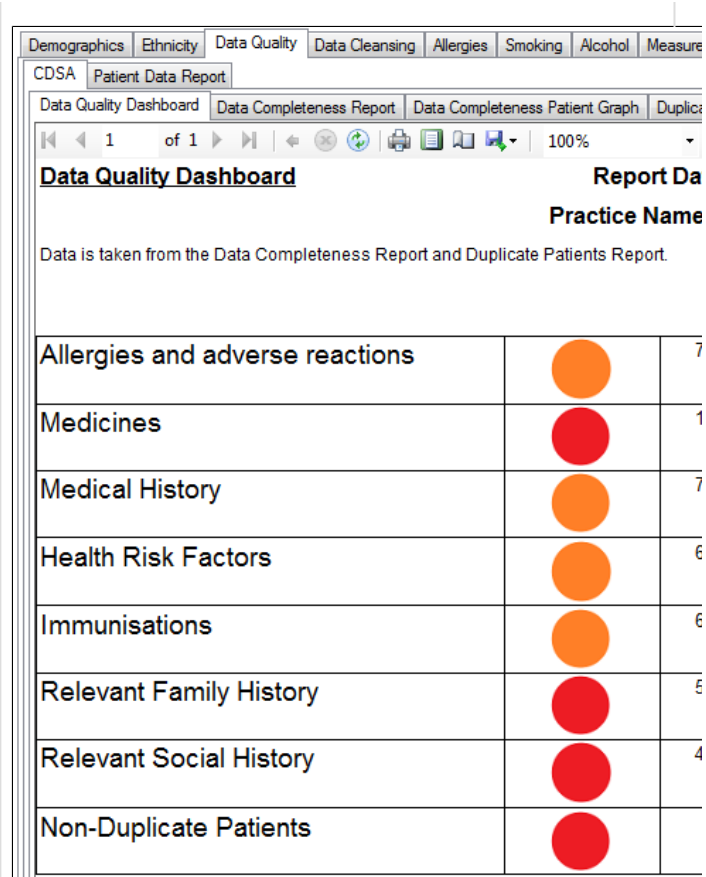
The CDSA Tool has been developed to report on the completeness of patient demographic and health summary data within the general practice clinical system. It provides the following reports:

- **'Data Quality Dashboard Report'** to indicate the overall status of data quality based on the data indicators.
- **'Data Completeness Report'** to report the % of completeness for each data indicator.
- **'Data Completeness Patient Graph'** to provide a graphical view of the data indicators and allow re-identification of patients where data is missing.
- **'Duplicate Patients Report'** to list patient records within the clinical system where duplication is suspected.

The CDSA Tool is available in CAT Version 3 for clinical systems where the CAT data extract meets to CAT data specifications version 1_12 or higher. It can be accessed from the CAT4 view under the 'Data Quality' tab. Under that tab are four different tabs which are described in more detail below.

Please note that the percentages shown on the Data Quality Dashboard are an in some cases an average value of the individual indicators. The Allergies and adverse reaction dashboard is a combination of Allergy Status recorded, Coded Allergy recorded and Reaction Completed.

Generally speaking the Data Completeness Report will give much more detail than the dashboard and is the recommended report to understand the data quality dashboard.



Data Indicators

The data indicators are based on the data content outlined in the RACGP data recommendations <http://www.racgp.org.au/ehealth/summary> and are grouped into sections as follows:

1. Allergies and Adverse Reactions
2. Medicines
3. Medical History
4. Health Risk Factors
5. Immunisations
6. Relevant Family History
7. Relevant Social History

Detailed data indicator information is provided in Appendix A at the end of this guide. Some indicators may not be available for some clinical systems. These are provided in Appendix B at the end of this guide.

Data Quality Dashboard

**Data Quality
> Dashboard
Report**

The Data Quality Dashboard provides a report indicating the overall status of data quality based on the data indicators. It displays each data content section with a 'Traffic Light' status icon calculated from the % completeness of each data indicator within the section. Each indicator contributes equal weight to the overall status. Indicators that are not available for a clinical system do not contribute to the overall status.

The 'Traffic Light' status icons will display:

RED : 0 – 60% for all

ORANGE : > 60 – 90% for allergies, >60 - 75% for the other indicators

GREEN : > 90% for allergies, >75% for the other indicators

An additional section for 'Duplicate Patients' is included. The dashboard status for this section is calculated as the percentage of patients where no potential duplication exists.

Note: There will always be some potential duplication that is not an error but with a 'clean' database this should be small and the status icon should be green.









The Data Quality Dashboard provides links to the relevant RACGP fact sheets which provide information on addressing identified gaps and improving overall clinical data quality. The RACGP has not published

updated fact sheets for the 5th Edition of their guidelines, but the recommendations have not changed.

Data Quality Dashboard

Prac

Data is taken from the Data Completeness Report and Duplicate Patient

Allergies and adverse reactions	
Medicines	
Medical History	
Health Risk Factors	
Immunisations	
Relevant Family History	
Relevant Social History	
Non-Duplicate Patients	

Data Quality
> Data
Completeness
Report

The Completeness Report provides a % of completeness for each data indicator.

For each data indicator the report displays:

Measure = measure description

Count = the number of data items correctly recorded

Eligible population = the possible number of data items for this measure (the measure denominator)

% = the count as a % of the eligible population

The eligible population is generally Active patients (3 visits in the last 2 years). Where an indicator has a different denominator this is highlighted on the report.

Indicators that are not available for a clinical system are highlighted in the report as 'Not Available'.

Data Completeness Report

* Eligible Population = Active patients except where the denominator is An Active patient has had 3 visits in the last 2 years

Measure	Count
Allergies and adverse reactions	
Allergy status recorded	
Allergy recorded - coded format (denominator = number of allergies for eligible population)	Not
Allergy recorded - description completed (denominator = number of allergies for eligible population)	
Medicines	
Medications - coded reason for prescribing recorded (denominator = number of scripts for eligible population)	

Data Quality
 > Data
 Completeness
 Graph

The Completeness graph provides a graphical view of the data indicators **by patient** and allows re-identification of patients where data is missing.

For each data indicator the report displays a patient in one of the following categories:

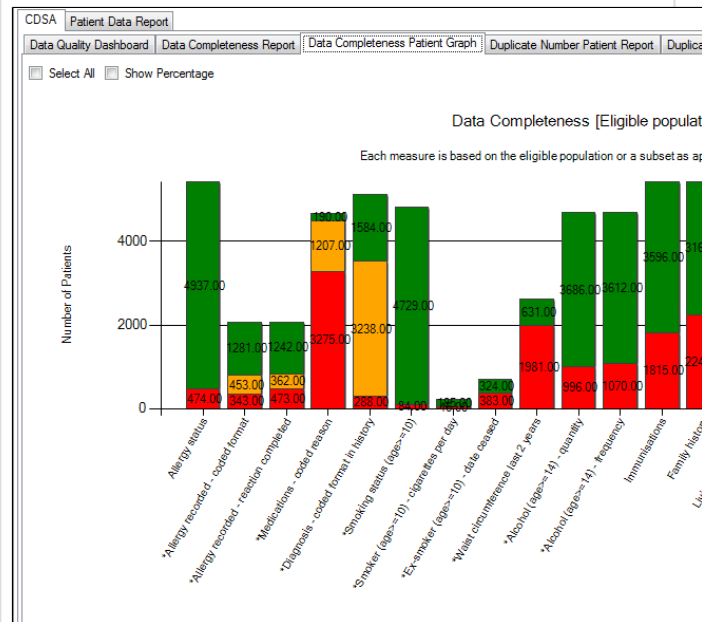
Green = Recorded (all items for this measure are recorded)

Orange = Partially recorded (some items for this measure are recorded)

Red = Not recorded (no items for this measure are recorded)

Grey = Not Available (no items for this measure are available for recording)

The eligible population is the Active patients (3 visits in the last 2 years). Where an indicator has a subset denominator this is highlighted in the report label.



**Data
Completeness
Worksheet**

Patient data can be exported from the Data Completeness Graph using the 'Worksheet' button.

The worksheet provides patient demographic details and a summary of the data contributing to each indicator. This allows missing data to be easily identified for follow up.

Reidentify Report [patient count = 65] - DATA COMPLETENESS WORKSHEET
Selected: Data Completeness (Medication Reason Coded: Recorded)

ID	Surname	First Name	Sex	D.O.B	Allergy Status	Meds coded	Diagnosis coded	Smoking	Waist
35774	Al35774	A35774	M	09/01/1972	NKA	1/1	3/4	Never Smoked	96
38908	Al38908	M38908	M	26/03/1977	NKA	1/1	2/2	Smoker	
30432	Be30432	J30432	F	29/12/1955	NKA	2/2	5/6	Never Smoked	
37815	Be37815	P37815	M	17/06/1978	NKA	1/1	1/1		
36527	Bl36527	L36527	F	04/10/1978	NKA	2/2	3/3	Smoker	
33096	Br33096	G33096	F	29/11/2004		1/1	4/4	Never Smoked	
40681	Ca40681	V40681	M	01/12/1976	NKA	1/1	1/1		
38722	Ch38722	C38722	F	30/03/1978	NKA	1/1	2/2	Ex Smoker 10032009	
39789	Ch39789	F39789	F	14/11/1983	Allergies Coded=NA	1/1	1/1	Never Smoked	

**Data Quality >
Duplicate
Patients
Report**

The Duplicate Patients Report is a list of patient records within the clinical system where duplication is suspected.

The report is divided into 2 parts:

- Name match – a match on all of:
Surname, First name initial, Gender **and** DOB

Duplicate Name Patient Report

Match on ALL of: surname, first name initial, gender and DoB

Name Matches [patient count = 2]

Surname	First Name	Sex	D.O.B.	Age	Address	City	Postcode
Tester	James	M	21/04/1955	64	Street	Sydney	2001
Tester	James	M	21/04/1955	64	Test Street	Parramatta	2150

- Number match – a match on any of:

Medicare number Practices may find duplicate Medicare numbers appear if their clinical system CAT extractor is not including the Medicare index number in the full number

HCC number
DVA number

The population is Total Patients.

Data Quality Dashboard Data Completeness Report Data Completeness Patient Graph Duplicate Number Patient Report

1 of 1 100% Find

Duplicate Number Patient Report

Match on ANY of: Medicare number, HCC number or DVA number

Number Matches [patient count = 11]

Surname	First Name	Sex	D.O.B.	Age	Address	City	Postcode
Andrews	Fred	M	23/02/1933	86	3 Best St	St. Kilda	3107
Bmi	Self	M	07/08/1957	62	3 Best St	St. Kilda	3107
Bmi	Test In Cat	F	02/01/1986	33	3 Best St	St. Kilda	3107
Bmi	Test1	F	28/06/1996	23	3 Best St	St. Kilda	3107
Bmi	Young	F	17/11/2003	15	3 Best St	St. Kilda	3107
Andrews	Maureen		19/05/1935	84	3 Best St	St. Kilda	3107
Andrews	Graham	M	22/07/1990	29	2 Kennedy Rd	Demo Town	4523
Andrews	Heather	F	01/05/1910	109	2 Kennedy Rd	Demotown	1234
Andrews	John	M	17/06/1945	74	2 Kennedy Rd	Demo Town	4523
Duck	Donald	M	21/01/1960	59	12 Disney Street	Disneyland	
WAGTAIL	WILLY	M		0	THE EUCALYPLUS TREE	SHERWOOD FOREST	4040

The report can be sorted by any of the columns. The default sorting is:

1. Name match by surname then first name
2. Number match by Medicare number then surname

Appendix A: Data Indicators		
Indicator	Numerator	Denominator
1. Allergies and Adverse Reactions		
Allergy status recorded	Number of patients with an allergy status recorded (Allergy recorded or no known allergies)	Active patients
Allergy recorded – coded format	Number of allergies recorded that are not NKA from a coded table of available allergens	Number of allergies for active patients recorded that are not NKA
Allergy recorded – reaction completed	Number of allergies recorded that are not NKA that have content in the reaction field	Number of allergies for active patients recorded that are not NKA
2. Medicines		
Medications – coded reason for prescribing	Number of prescriptions for current medications in active patients where the reason for prescribing is recorded from a coded pick list	Number of prescriptions for current medications recorded for active patients
3. Medical History		

Diagnosis recorded – coded format in past history	Number of diagnoses entered in the past history which have been entered in a coded format	Number of diagnoses recorded in the past history for active patients
4. Health Risk Factors		
Smoking status recorded	Number of active patients 10 years and over for whom smoking status is recorded	Active patients 10 years and over
Smoker – Cigarettes per day recorded	Number of active patients 10 years and over recorded as smokers for whom the number of cigarettes has been recorded	Active patients 10 years and over recorded as smokers
Ex-smoker – Date ceased	Number of active patients 10 years and over recorded as ex-smokers for whom a cease date is recorded	Active patients 10 years and over recorded as ex-smokers
Waist circumference recorded in overweight/underweight patients	Number of active patients for whom a waist circumference is recorded within the last 2 years	Active patients who are overweight (BMI 25) or underweight (BMI < 18.5)
Alcohol Status – quantity recorded	Number of active patients 14 years and over who have alcohol quantity recorded	Active patients 14 years and over
Alcohol Status – frequency recorded	Number of active patients 14 years and over who have alcohol frequency recorded	Active patients 14 years and over
5. Immunisations		
Immunisations recorded Active patients with immunisations recorded in the system		Active patients
6. Relevant Family History		
Family history recorded	Active patients with family history recorded in the system	Active patients
7. Relevant Social History		
Living arrangement recorded	Active patients with living arrangements recorded	Active patients
Ethnicity recorded	Active patients with ethnicity recorded	Active patients
Is a carer recorded	Active patients with 'Is carer' recorded	Active patients
Has a carer recorded	Active patients with 'has a carer' field recorded	Active patients
Occupation and employment status recorded	Active patients with occupation and employment status field recorded	Active patients 15 years and over
Relationship status recorded	Active patients with relationship status field recorded	Active patients 15 years and over
8. Duplicate Patients		
Duplicate Patients	Patients who have a match on any of the following: Surname, First name initial, Gender and DOB Medicare number HCC number DVA number A patient is only counted once regardless of the number of items where there are matches	Total Population

Appendix B: Indicator unavailability by Clinical System	
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Medical Director	The following indicators are not available for collection from Medical Director: Allergy recorded – coded format Living arrangement recorded Is a carer recorded Has a carer recorded
Best Practice	All indicators are available
Medinet	The following indicators are not available for collection from Medinet: Allergy recorded – coded format Medications – coded reason Living arrangement recorded Is a carer recorded Has a carer recorded