

CHAPTER FOUR:
CAPTURE AND SUBMISSION OF CLINICAL DATA

1 Commencement of Clinical Data Submission

Data submission should commence at the patient’s first visit to the doctor for selected CDMP/CHAS conditions. These are **Diabetes Mellitus/Pre-diabetes, Hypertension, Lipid Disorders, Asthma, COPD, CKD (Nephritis/Nephrosis)**.

1.1 The quality of patient care for these six chronic conditions will be evaluated according to whether the relevant process and care components have been met as listed below:

Table 4.1: List of Clinical Indicators for CDMP/CHAS (For Submission)

Chronic Condition	Care Components Per Year ¹⁴
Diabetes Mellitus	<ul style="list-style-type: none"> • Two blood pressure measurements • Two bodyweight measurements • Two haemoglobin A1c (HbA1c) tests • One serum cholesterol level (LDL-C) test • One smoking habit assessment • One eye assessment • One foot assessment • One nephropathy assessment (Additional indicators for patients with nephropathy will follow that of Nephritis/Nephrosis)
Pre-diabetes	<ul style="list-style-type: none"> • One blood pressure measurement • Two bodyweight measurements • Two or more blood glucose tests (FPG, OGTT, HbA1c) as appropriate¹⁵ • One serum cholesterol level (LDL-C) test • One nephropathy assessment (if on metformin)
Hypertension	<ul style="list-style-type: none"> • Two blood pressure measurements • Two bodyweight measurement • One smoking habit assessment
Lipid Disorders	<ul style="list-style-type: none"> • One serum cholesterol level (LDL-C) test • One smoking habit assessment
Asthma	<ul style="list-style-type: none"> • Two Asthma Control Test (ACT)¹⁶ scores • One smoking habit assessment
COPD	<ul style="list-style-type: none"> • One smoking habit assessment • One bodyweight measurement • One COPD Assessment Test (CAT) score • One influenza vaccination
CKD (Nephritis/ Nephrosis)	<ul style="list-style-type: none"> • Two blood pressure measurements • One renal function – creatinine and/or eGFR • One urine protein – urine protein : creatinine ratio

¹⁴ ‘Per year’ refers to 12 months from the first visit of the patient for the chronic condition(s).

¹⁵ Refer to Clinical Guidelines for Pre-diabetes (p11-14) for more details.

¹⁶ This is only applicable for patients aged 4 and above. For patients aged 4 to < 12 years, please use the Childhood ACT, and for those aged 12 years and above, the ACT.

1.2 Although data submission is not required for the remaining conditions, clinicians are advised to manage according to best clinical practices and document essential care components as listed below:

Table 4.2: List of Clinical Indicators for CDMP/CHAS (Routine Data Submission not required)

Chronic Condition	Minimum Clinical Indicators (Per Year) ¹⁷
Schizophrenia	<ul style="list-style-type: none"> • Two consultations for CDMP Mental Health • One Clinical Global Impression (CGI) Scale for each item (severity, improvement) • Blood test for fasting glucose and fasting lipids¹⁸
Major Depression	<ul style="list-style-type: none"> • Two consultations for CDMP Mental Health • One Clinical Global Impression (CGI) Scale for each item (severity, improvement)
Bipolar Disorder	<ul style="list-style-type: none"> • Two consultations for CDMP Mental Health • One Clinical Global Impression (CGI) Scale for each item (severity, improvement)
Anxiety	<ul style="list-style-type: none"> • One Clinical Global Impression (CGI) Scale for each item (severity, improvement)
Stroke	<ul style="list-style-type: none"> • Two blood pressure measurements • One serum cholesterol level (LDL-C) test • One smoking habit assessment • One clinical thromboembolism risk assessment • One rehabilitation need assessment
Dementia	<ul style="list-style-type: none"> • Documentation of: <ol style="list-style-type: none"> i. Assessment of mood and behaviour ii. Assessment of social difficulties and caregiver stress (if any) iii. Assessment of functional needs assessment • Two consultations for CDMP Dementia • For patients on cognitive enhancers, documentation of objective assessment of memory (MMSE or CMMSE testing or other validated instruments)
Osteoarthritis	<ul style="list-style-type: none"> • One Joint function assessment • One bodyweight measurement • One exercise and/or weight loss plan (if indicated) • One Activities of Daily Living (ADL) assessment
Parkinson's Disease	<ul style="list-style-type: none"> • One Unified Parkinson's Disease Rating Scale (for falls) • One Schawb and England Activities of Daily Living Scale • One review of diagnosis

¹⁷ 'Per year' refers to 12 months from the first visit of the patient for the chronic condition(s).

¹⁸ Only for patients with Schizophrenia on atypical antipsychotic medications.

Chronic Condition	Minimum Clinical Indicators (Per Year) ¹⁷
BPH	<ul style="list-style-type: none"> • One International Prostate Symptom Score (I-PSS) • One Abdominal examination/Digital rectal examination • One Urine dipstick test
Epilepsy	<ul style="list-style-type: none"> • One seizure frequency assessment • One seizure type assessment • One seizure free duration assessment
Osteoporosis	<ul style="list-style-type: none"> • At least one DEXA scan every 2 years • One WHO Fracture Risk Assessment Tool (FRAX Score)
Psoriasis	<ul style="list-style-type: none"> • One psoriatic arthritis assessment • One Body Surface Area (BSA) percentage assessment
Rheumatoid Arthritis	<ul style="list-style-type: none"> • One RA disease activity assessment
Ischaemic Heart Disease	<ul style="list-style-type: none"> • Two blood pressure measurements • Two bodyweight measurements • One diagnostic diabetes test for those with impaired fasting glycemia or impaired glucose tolerance, or one diagnostic diabetes test for those with normal glucose tolerance • One serum cholesterol level (LDL-C) test • One smoking habit assessment • One nephropathy assessment

2 Collection and Submission of Clinical Data

- 2.1 The collection of clinical data can be carried out by:
- Manually recording the clinical data on a hardcopy template (Annex B, page 54-55). Please note that for *submission* purposes the data will subsequently have to be keyed in via the online CIDC e-Service (see Chapter Five: User Manual for e-Service Clinical Data Submission) or the MHCP system (see the MHCP User Guide available in the MHCP Resource Hub);
 - Recording the clinical data directly onto electronic records through the Clinic Management System installed for electronic submission of clinical data for CDMP/CHAS enrolled patients.

3 Deadlines for Submission of Clinical Data to MOH

- 3.1 Submission of clinical data is an essential component of the CDMP/CHAS.
- 3.2 We encourage clinics to submit clinical data as soon as possible, during or immediately after the patient's clinic visit. Doing this would reduce the backlogs in submitting clinical data.

- 3.3 Clinics are allowed to accumulate patient records for submission in batches. However, for batch submissions, regular (e.g. weekly or monthly) submissions are encouraged.
- 3.4 When using the electronic Clinic Management System to capture data during the consultation, the system may allow submission of data automatically at the end of each patient consultation.
- 3.5 The deadline for the clinical data submission will be fourteen days after the end of each quarter. As an example, for the quarter from Jan to Mar 2017, the deadline for data submission will be 14 Apr 2017.

Data Fields Required for Clinical Data Submission

Patient Details	
Patient Name	
NRIC/FIN	
DOB (dd/mm/yyyy)	
Gender	Male (<input type="checkbox"/>), Female (<input type="checkbox"/>)
Race	Chinese (<input type="checkbox"/>), Malay (<input type="checkbox"/>), Indian (<input type="checkbox"/>), Others (<input type="checkbox"/>)
Height (m)	
Current Smoker	Yes (<input type="checkbox"/>), No (<input type="checkbox"/>)
Year Started Smoking (yyyy)	

Medical History	Yes (✓)	Year of Diagnosis (yyyy)
Hypertension		
Hyperlipidemia		
Ischaemic Heart Disease (IHD)		
Diabetes (DM)		
Pre-diabetes		
DM Retinopathy		
DM Nephropathy		
DM Foot Complications		
Asthma		
Chronic Obstructive Pulmonary Disease (COPD)		
Chronic Kidney Disease (Nephritis/Nephrosis)		

Diabetes Treatment	Yes (✓)	Year of Diagnosis (yyyy)
Oral Medications		
Insulin		
Hypertension Treatment	Yes (✓)	Year of Diagnosis (yyyy)
Oral Medications		
Hyperlipidemia Treatment	Yes (✓)	Year of Diagnosis (yyyy)
Oral Medications		
Asthma Treatment	Yes (✓)	Year of Diagnosis (yyyy)
Requires Controller		

A) Diabetes, Hypertension and Lipid Disorders DMP

	For Diabetes, Pre-diabetes, Hypertension and Lipid Disorders				For Diabetes, Hypertension and Lipid Disorders
Date of Visit (dd/mm/yy)	LDL-C (mg/dL)/(mmol/L)	Systolic BP (mmHg)	Diastolic BP (mmHg)	Weight (kg)	Avg no. cigs/day

	For Diabetes only			
Date of Visit (dd/mm/yy)	Glucose HbA1c (%)	Eye (v)	Foot (v)	Nephropathy (v)

	For Pre-diabetes only		
Date of Visit (dd/mm/yy)	FPG (mmol/L)	OGTT (mmol/L)	Nephropathy (v)

	For DM Nephropathy only		
Date of Visit (dd/mm/yy)	Serum Creatinine ($\mu\text{mol/L}$)	eGFR (ml/min/1.73m ²)	Urine ACR (mg/mmol)

B) Asthma and Chronic Obstructive Pulmonary Disease (COPD) DMP

	For Asthma, COPD	For Asthma only	For COPD only		
Date of Visit (dd/mm/yy)	Avg no. cigs/day	Asthma Control Test (ACT) Score	Weight (kg)	COPD Assessment Test (CAT) Score	Influenza Vaccination (v)

C) Chronic Kidney Disease (Nephritis/Nephrosis) DMP

	For Chronic Kidney Disease (Nephritis/Nephrosis)				
Date of Visit (dd/mm/yy)	Systolic BP (mmHg)	Diastolic BP (mmHg)	Serum Creatinine ($\mu\text{mol/L}$)	eGFR (ml/min/1.73m ²)	Urine ACR or Urine PCR (mg/mmol)