CHRONIC DISEASE MANAGEMENT PROGRAMME

HANDBOOK FOR HEALTHCARE PROFESSIONALS

MINISTRY OF HEALTH
SINGAPORE

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FOREWORD

This Handbook is written for all medical practitioners and healthcare institutions participating in the Chronic Disease Management Programme (CDMP). We hope that it will be especially useful to general practitioners on the Community Health Assist Scheme (CHAS), who will increasingly care for individuals with chronic conditions as Singapore's population ages.

2. The CDMP was introduced in 2006. To reduce out-of-pocket expenses for outpatient management of their chronic conditions and promote care-seeking behaviour, eligible patients can utilise MediSave and enjoy subsidies at CHAS GP clinics for these conditions.

3. MOH reviews the list of CDMP conditions regularly. This year, we announced the inclusion of three new conditions under the CDMP – allergic rhinitis, gout, and chronic hepatitis B, bringing the total number of CDMP conditions to 23. All new chronic conditions covered under CDMP are automatically extended to be in the list of conditions eligible for CHAS Chronic subsidies.

4. This Handbook aims to serve as a quick guide on the CDMP, covering a range of practical issues from administrative and claims-related matters to broad guidelines on the recommended key components of clinical care. The CDMP Handbook is not intended to be a comprehensive clinical guide, but consolidates key components of locally-relevant practice guidelines and incorporates evidence based advice to provide a succinct reference for evidence-based practice. In addition to keeping abreast of the latest clinical updates, primary care clinicians are also reminded to care for patients holistically. This involves considering how multimorbidity may affect treatment priorities, giving advice on health promotion and preventive aspects of care, and working with patients on individualised care plans to maximise each person's health.

5. We wish to thank healthcare professionals for your dedication and hard work in caring for individuals with chronic conditions, and hope you will find this Handbook useful.

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CHAPTER ONE:
CHRONIC DISEASE MANAGEMENT PROGRAMME (CDMP) AND COMMUNITY HEALTH ASSIST SCHEME (CHAS)

1 Overview

1.1 MediSave for Chronic Disease Management Programme (CDMP)

1.1.1 The CDMP was introduced at the end of 2006 and involves: (a) evidence-based structured Disease Management Programmes (DMPs[1]), where applicable and (b) the option for patients to draw on their MediSave to help reduce out-of-pocket payments for outpatient treatment required in the management of their chronic diseases.

1.2 Community Health Assist Scheme (CHAS)

1.2.1 CHAS, formerly known as the Primary Care Partnership Scheme (PCPS), was introduced in Jan 2012 to enable lower- to middle-income Singapore Citizens to receive subsidies for medical and dental care at CHAS General Practitioner (GP) and dental clinics.

1.2.2 Since its introduction, chronic conditions under CHAS and CDMP have been kept the same, allowing CHAS to complement CDMP. Eligible patients with selected chronic conditions are thus able to enjoy CHAS subsidies, as well as tap on their MediSave for the outpatient treatment of their chronic conditions.

1.2.3 The Pioneer Generation Package (PGP) was introduced in Sep 2014 to allow all Pioneers to receive special subsidies under CHAS. This would also help CHAS GPs provide holistic care for Pioneer Generation (PG) cardholders under their care, in line with the vision of "One Family Physician for every Singaporean".

1.2.4 In Nov 2019, CHAS was enhanced to cover all Singaporeans with selected chronic conditions, regardless of their income. In addition, the Merdeka Generation Package (MGP) was introduced to provide special subsidies under CHAS to the Merdeka Generation (MG).

1.3 Covered Conditions

1.3.1 Treatment of chronic diseases is costly when administered collectively over a long period. CDMP/CHAS will help reduce out-of-pocket payments and reduce barriers for patients to seek medical treatment. With the inclusion of more chronic conditions under CDMP/CHAS, GPs will be able to take on a greater role in the management of their patients' chronic diseases.

[1] Components of disease management include: (a) population identification process; (b) evidence-based practice guidelines; (c) collaborative practice models to include physician and support-service providers; (d) patient self-management education; (e) process and outcome management, evaluation, and management; and (f) routine reporting/feedback loop.

1.3.2 With effect from 1 July 2022, three new conditions will be included under CDMP. These conditions are allergic rhinitis, gout and chronic hepatitis B.

1.3.3 The use of CDMP/CHAS will apply to the conditions listed below:

Table 1.1: Chronic Conditions under CDMP/CHAS

	Conditions under CDMP/CHAS
Chronic Conditions with Established DMPs (Requiring the reporting of clinical indicators as detailed in Chapter Four: Capture and Submission of Clinical Data)	1) Diabetes Mellitus and Pre-Diabetes 2) Hypertension 3) Lipid Disorders 4) Asthma 5) Chronic Obstructive Pulmonary Disease (COPD) 6) Chronic Kidney Disease (Nephritis/Nephrosis)
CDMP-Mental Illnesses (Requiring participation of clinics/doctors in the Mental Health GP Partnership Programme)	7) Schizophrenia 8) Major Depression 9) Bipolar Disorder 10) Anxiety
Other Chronic Conditions	11) Stroke 12) Dementia 13) Osteoarthritis 14) Parkinson's Disease 15) Benign Prostatic Hyperplasia (BPH) 16) Epilepsy 17) Osteoporosis 18) Psoriasis 19) Rheumatoid Arthritis (RA) 20) Ischaemic Heart Disease (IHD) 21) Allergic Rhinitis 22) Gout 23) Chronic Hepatitis B

2 Clinical Guidelines and Clinical Data Submission

2.1 Participating clinics/medical institutions are required to provide care to patients in line with the latest MOH Clinical Practice Guidelines (CPGs), ACE Clinical Guidances (ACGs)[2] and/or best available evidence-based practice, as well as to track and submit clinical data to monitor and improve patient outcomes. While participating clinics/medical institutions are required to submit clinical indicators, clinical data submission is needed for only six of the conditions under CDMP/CHAS. For the other conditions, recommended care components outlined in this handbook are expected to be documented and may be subjected to periodic audits.

[2] ACGs: ACE Clinical Guidances, also known as "Appropriate Care Guides", are available at https://www.ace-hta.gov.sg/healthcare-professionals/ace-clinical-guidances-(acgs).

2.2 Please refer to Chapter Three: The Clinical Guidelines for further details on the recommended care components, indications for referral and specific examples of claimable/non-claimable items. These are recommended by Subject-Matter-Experts based on best available medical evidence. The lists of reportable and non-reportable clinical indicators are detailed in Chapter Four: Capture and Submission of Clinical Data.

CHAPTER TWO:
REGISTRATION AND MEDISAVE USE

1. Policy on MediSave Use

1.1. The primary purpose of MediSave is to help Singaporeans afford costly hospitalisation bills. For chronic conditions, early detection and good management help patients avoid subsequent costly hospitalisations. To bring about better health outcomes, MOH has allowed MediSave to cover selected chronic conditions in the outpatient setting.

1.2. Since 1 July 2014, the $30 deductible applicable for each outpatient CDMP bill using MediSave has been removed. Nonetheless, to ensure prudent use of MediSave funds, two safeguards remain in place under the CDMP:

a) **Co-payment**: A co-payment of 15% will apply to each outpatient CDMP bill; and

b) **Annual withdrawal limit**: An annual withdrawal limit of $500/700 per patient applies[3]. This will be reset on 1 January of each year.

Example:
For a CDMP bill of $100, the patient pays $15 out-of-pocket. The remaining $85 can be claimed from MediSave.

1.3 Only doctors and clinics/medical institutions which are accredited for MediSave use and participating in the CDMP can make MediSave claims for patients. To make claims for Mental Illnesses[4] (i.e. Schizophrenia, Major Depression, Bipolar Disorder and Anxiety), GPs additionally need to participate in the Mental Health GP Partnership Programme (MHGPP) and attend the CDMP-MI training provided under MHGPP[5]. Doctors who are registered specialists in psychiatry do not need to join MHGPP and are exempted from CDMP-MI training. GPs are exempted from having to attend CDMP-MI training (but are still required to take part in MHGPP) if they have the following qualifications/ background:

a) Doctors with MMed(FM), GDFM or on the Register of Family Physicians, if the mental health training modules of these programmes include all the conditions in CDMP Mental Illnesses.

b) Doctors with Family Medicine (FM) training who had 3 months posting at psychiatric departments at the various Restructured Hospitals from May 2007;

c) Doctors who had 6 months posting at psychiatric departments at the various Restructured Hospitals from May 2007; OR

d) Holders of the Graduate Diploma in Mental Health.

[3] The withdrawal limit was implemented on a per-patient basis, and raised from $500 to $700 for patients with complex chronic conditions from 1 January 2021.

[4] Dementia will not be considered a mental illness under the CDMP as of 1 Jan 2014. Physicians who wish to manage Dementia under CDMP are not required to participate in the MHGPP.

[5] The MHGPP is meant to provide specialised support (e.g. from psychiatrists and mental health trained nurses, as well as supply of drugs for mental illness) to primary care doctors and ensure that they have sufficient training and confidence in treating patients with mental health conditions.

2. Registration Process for MediSave for CDMP

2.1. Clinics Intending to Participate in the CDMP

2.1.1. To be in the CDMP, both the clinic/medical institution and its doctor(s) have to register with and be accredited by MOH. Upon approval, the clinic/medical institution and/or doctors can then make MediSave claims on behalf of their patients.

2.1.2. An outline of the registration and accreditation process is provided in Table 2.1.

Table 2.1: Registration and Accreditation Process (MediSave for CDMP)

Steps
Clinics submit E-Application form to MOH/Doctors submit E-Application form to MOH (Concurrently)
↓
Interested clinics submit documents to CPF Board
↓
Clinic representative(s) complete(s) online e-learning course (Claim submission process, IT and MediSave guidelines)
↓
MOH approves the participation of the clinics
↓
Clinics submit application for account setup / CPF Board prepares Deed of Indemnity with clinics / MOH issues letters of approval to clinics
↓
Effective date of participation in the CDMP by clinics

2.2 Registration of Clinic/Medical Institution with MOH

2.2.1 To join the CDMP, clinics/medical institutions will need to fulfil the following criteria, including but not limited to:

a) Have a valid licence under the Private Hospitals and Medical Act (Cap. 248) to carry out the procedures and treatments to be claimed under MediSave scheme;

b) Complete the necessary e-learning modules;

c) The applicant, the person(s) indicated as the licensee, the clinic manager or person(s) having management or control of the applicant is not in breach or suspected to be in breach of (i) the terms and conditions of any public scheme administered by the Government or its appointed agents, including public schemes administered by MOH; (ii) any health service licensing legislation and regulations, including the Medical Registration Act (Cap. 174) or the Dental Registration Act (Cap. 76); and/or (iii) all applicable laws and legislation (including the CPF Act, the Medisave Accounts Withdrawal Regulations, and MediShield Life Scheme Regulations), and all prevailing relevant guidelines and requirements issued or imposed by MOH, including and not limited to the guidelines and requirements in the MediSave Manual and circulars;

d) The applicant, licensee(s), clinic manager and persons employed by the Applicant have a satisfactory track record under any applicable legislation or

MOH healthcare financing or assistance schemes, including but not limited to (i) whether the applicant, licensee(s), and/or clinic manager owe any monies to the Government and/or have not completed their remedial actions for breaches in relation to any Government healthcare financing or assistance schemes; (ii) whether the applicant, licensee(s), and/or clinic manager was/is suspended or terminated from any Government healthcare financing or assistance schemes, whether in the past or present;

e) The applicant, licensee(s), and/or clinic manager had no involvement or suspected involvement in the following, whether past or present: (i) conviction of an offence, or found by the relevant professional board (Singapore Medical Council or Singapore Dental Council) to be guilty of misconduct involving dishonesty or fraud; (ii) suspended or struck off the register maintained by the SMC or the SDC; (iii) engaged or engaging in over-servicing or over-charging his patients (as determined by the Government in its sole discretion); and/or (iii) investigation by the Government and/or other relevant authorities relating to the MediSave and MediShield Life Scheme, dishonesty and/or fraud;

f) Be able to submit clinical data for patients through the online MediClaim system[6], the online MOH Healthcare Claims Portal (MHCP), or selected Clinic Management Systems (CMS) on the SmartCMS Programme [7] such as ClinicAssist; and

g) Sign a Deed of Indemnity with CPF Board

2.2.2 To make claims for patients through the online MediClaim system, clinics/medical institutions need to have:

a) A CorpPass account;

b) A Personal Computer/Laptop with the following configuration:
   (i) Minimum 1 gigahertz (GHz) or faster processor
   (ii) 4GB or above Memory (RAM)
   (iii) 10GB of free space in HDD
   (iv) Operating System Windows 10
   (v) Browser Internet Explorer 11
   (vi) Internet connection

c) GIRO arrangement with CPF Board for MediSave payments to be credited into the clinic/medical institution's bank account; and

d) Attended training to process MediSave claims.

2.2.3 To make claims for patients through the online MHCP system, clinics/medical institutions need to have:

a) A CorpPass account

b) A Personal Computer/Laptop with the following configuration:
   (i) 1 gigahertz (GHz) or faster processor,

[6] Clinics which are not ready to make claims through the MediSave e-service could opt to submit claims via other CMSes on the SmartCMS programme such as ClinicAssist.

[7] Clinic Management Systems (CMSes) on the SmartCMS programme are integrated with the public healthcare system. A list of SmartCMS programme participants can be found on https://www.ihis.com.sg/SmartCMS_Programme.

(ii) 4GB RAM or above,
(iii) 10GB of free space in HDD,
(iv) 1366 x 768 display resolution for optimum viewing,
(v) 10 Mbps Internet bandwidth,
(vi) Browser Internet Explorer 10.0 or above (Chrome, Firefox and Safari browsers are also supported),
(vii) Adobe Acrobat Reader,
(viii) Microsoft Excel 2007 and above, and
(ix) Internet connection;

c) GIRO arrangement with CPF Board for MediSave payments to be credited into the clinic/medical institution's bank account; and
d) Attended training to process MediSave claims.

2.2.4 Clinics/medical institutions interested in joining the CDMP will need to submit the following forms to MOH:

a) E-Application for Clinics to Participate in the MediSave for CDMP (by MOH);
b) Direct Debit Authorisation Form (DDA) – Pay MediSave Refunds, Interest and Fees (by CPF Board);
c) Direct Debit Authorisation Form (DDA) – Pay Financial Penalty/Interest (by CPF Board);
d) Direct Credit Authorisation Form (DCA) – with bank's endorsement; and the following, depending on the entity type (by CPF Board):

<u>For Incorporated Business (Pte Ltd) (by CPF Board)</u>

e) Certified true copy of relevant pages of Company's Memorandum and Articles of Association (MAA)/Constitution;
f) Original Board Resolution, signed and dated; and
g) NRIC copies of the Signatories of the Deed of Indemnity (DOI). If the person signing the DOI is a foreigner, please provide certified true copies of his/her passport or any Singapore-issued ID.

<u>For Sole Proprietorship (by CPF Board)</u>

h) NRIC copies of the sole proprietor and Witness signing the DOI. If person signing the DOI is a foreigner, please provide certified true copies of his/her passport or any Singapore-issued ID.

<u>For Partnership (by CPF Board)</u>

i) Certified true copy of Partnership Agreement; and
j) NRIC copies of all the partners. If partner is a foreigner, please provide certified true copies of his/her passport or any Singapore-issued ID.

The E-Application website can be accessed via:
https://www.mediclaim.moh.gov.sg/mmae/OverviewApplication.aspx

2.2.5 Clinic/medical institution representative(s) who will be making MediSave claims are required to register for an online e-learning course on MediSave claims process, MediSave use guidelines and use of the MediClaim system.

The E-Learning application website can be accessed via: https://www.mediclaim.moh.gov.sg/mmae/TrainingRegistration/ELearningTrainingRegistration.aspx

2.2.6 Clinics/medical institutions participating in the CDMP will be subjected to:

a) Clinical quality checks conducted by MOH and/or its appointed auditors on patients who make MediSave claims through the clinics/medical institutions;
b) Professional medical audits conducted by MOH and/or its appointed auditors on MediSave claims and clinical indicators submitted; and/or
c) Operational audits conducted by CPF Board and/or its appointed auditors on MediSave claims.

2.3 Registration of Doctor with MOH

2.3.4 Doctors practising at accredited clinics/medical institutions need to register with MOH to participate in the CDMP before they can make MediSave claims for their patients.

2.3.5 Interested doctors can submit an E-Application to participate in the CDMP. The website is: https://www.mediclaim.moh.gov.sg/mmae/DoctorApplication.aspx. Registration for MediSave accreditation of doctors needs to be renewed every 2 years.

2.3.6 Registered doctors will be audited by MOH, CPF Board and/or its appointed auditors on the clinical indicators and MediSave claims of their patients.

3 Process of Making a MediSave Claim

A typical process of making a MediSave claim for a patient is described below:

3.1 What to convey to patient or immediate family members who wish to use MediSave:

a) The treatment components
b) The cost of treatment
c) Estimated amount that can be claimed from MediSave, and
d) Out-of-pocket cash payment that the patient needs to make

3.2 Administrative Procedure:

a) Each MediSave account holder will need to sign a Medical Claims Authorisation Form (MCAF) to authorise the CPF Board to deduct his/her MediSave funds for the treatment of the patient. The authorisation can be made on a per

treatment basis or over a period of time[8]. Authorisations over a period of time will stand until revoked in writing.

b) Clinic/medical institution staff should ensure that the particulars stated on the form match those stated in the NRIC or identification document provided. Clinic/medical institution staff should also verify relationships declared, where possible.

c) The clinic/medical institution's staff should ensure that the patient and additional MediSave payer(s) understand and acknowledge the relevant paragraphs in the form.

d) A witness has to verify that the patient and additional MediSave payer(s) have completed and signed the form. The witness must be a Singapore Citizen or Permanent Resident aged 21 years and above and must not lack mental capacity. Where the institution's staff is acting as a witness, the SC/PR and age requirements are lifted.

e) Clinics/medical institutions are to submit the MediSave claims electronically to CPF Board for processing via the MediClaim System.

3.3 If the patient is deemed to be mentally incapacitated (see definition of mentally incapacitated person below), his donee/deputy or immediate family members would need to authorise the use of the patient's own MediSave. The doctor in charge would need to certify on the relevant part of the form that the patient is mentally incapacitated.

A mentally incapacitated person is defined as a person who either:

a) has a medical report from a psychiatrist declaring that the patient is permanently mentally incapacitated; or

b) is determined by a doctor, at the material time, to be unable to decide for himself. An inability to decide is when a patient is unable to:
   (i) Understand the information relevant to the decision;
   (ii) Retain that information relevant to the decision;
   (iii) Use or weigh that information as part of the decision-making process; and
   (iv) Communicate his decision (by any means).

3.4 Payment will be made daily to MediSave-accredited clinics/medical institutions via InterBank Giro (IBG) on the 3rd working day after the approval date of the MediSave claims.

Where a clinic/medical institution has made an over-claim or unauthorised deduction from MediSave, it will have to refund the amount deducted to the MediSave account. The clinic/medical institution will have to pay the interest lost by individuals if it is the clinic's/medical institution's error. The interest will be computed at the prevailing CPF interest at the time of the adjustment.

[8] Authorisation can be for a period of 3, 6 or 12 months, or for an open-ended length of time subject to revocation in writing.

3.5 Clinics submit MediSave claims electronically.

4 Audit

4.1 All MediSave claims and clinical indicators for CDMP conditions submitted by the participating clinic/medical institution may be subjected to regular audit by the CPF Board, the Ministry of Health and/or its appointed auditors. There are 2 types of audits for MediSave claims:

a) Operational audit: This audit looks at the operational aspect of making MediSave claims such as proper documentation and completion of the MCAF;
b) Professional audit: This audit looks at treatments and investigations administered for each MediSave claim to determine if it is related to the diagnosis, whether reportable clinical indicator data was submitted, and the accuracy of clinical indicator data submitted.

4.2 Prior notice will be given to identify the cases to be audited. The following documents may be required for the audit:

a) Hard copies of Claim Forms and Clinical Indicator Reports submitted electronically,
b) Medical Claims Authorisation Forms,
c) Itemised bills/Payment records (detailing consultation charges, individual drug charges, DRP, nursing charges, other services),
d) Photocopies of identification papers (where necessary),
e) Case records of the patient for the visits which were claimed (details under para 5.1). For claims on the complications of the approved chronic diseases, doctors have to document the causal relationship. For packages, please indicate dates of visits which are claimed,
f) Investigation/Test reports where available e.g. HbA1c results, lipid results,
g) Prescription records, and
h) Evidence supporting diagnosis e.g. documentation in case records or laboratory reports.

4.3 Routine clinical data submission will only be required for Diabetes Mellitus/Pre-diabetes, Hypertension, Lipid Disorders, COPD, Asthma, CKD (Nephritis/Nephrosis), unless otherwise stated via circular. Please note that in case the MediSave claim includes treatment for complication(s) due to the chronic disease, the doctor would need to document clearly the causal relationship between the approved chronic condition and the complication(s) which arose from it.

4.4 Clinics/medical institutions or doctors found guilty of wrong claims (i.e. claims non-compliant to the CDMP Handbook and prevailing guidelines/circulars) will be required to return the relevant amount to the affected MediSave account(s) with interest. In addition, the doctor will be issued a warning letter. A doctor who makes repeated infringements may face suspension or revocation of his MediSave accreditation.

5 Recommended Standards of Documentation to Support Claims

5.1 Clinical records are expected to be accurate, clear and complete with the following information to support claims under CDMP:

a) Key findings from focused history taking and physical examination, which should include the patient's chief complaint (if any), and reflect diagnoses of **current** acute and/or chronic medical issues

b) Indicated laboratory and/or radiological investigations, if any, to assist in diagnosis and/or management

c) Diagnoses and/or problem list

d) Treatment plan

e) Recommended care components as elaborated on in Chapter Three: The Clinical Guidelines

CHAPTER THREE:
THE CLINICAL GUIDELINES

1 Guidelines for Participating Clinics and Practitioners

1.1 Clinics participating in the CDMP/CHAS are expected to provide all the recommended care components detailed in this handbook. The basis for establishing a diagnosis of the chronic diseases should conform to the prevailing MOH CPGs, ACGs and best available evidence-based practice, where applicable.

1.2 The recommended care components of each condition are recommended by the Clinical Advisory Committee appointed by MOH and are based on current available evidence. They can be found in Chapter Three: The Clinical Guidelines of this handbook.

1.3 In general, the management of metabolic risk factors and lifestyle advice such as smoking cessation are relevant to many CDMP conditions. While these may not be explicitly specified as a recommended care component under the specified disease section, it is advised that each individual's chronic care needs are considered in a holistic manner, and management of metabolic risk factors carried out where indicated.

1.4 To facilitate integration of care across the various settings so that patients continue to receive appropriate management of their chronic conditions, MOH has worked with the relevant specialists to develop continuing care guidelines:

a) To identify suitable patients who are stable and can be managed in the community by their primary care physician rather than in a tertiary setting;
or
b) To identify patients who are at risk and may benefit from specialist opinion.

1.5 Patients often have one or more of the three common metabolic and cardiovascular diseases, namely Diabetes Mellitus, Hypertension and Lipid Disorders. For these patients, they should be enrolled into the respective DMPs according to **Annex A** (page 22).

1.6 For new diagnosis of Dementia or suspected cognitive impairment, when in doubt, it is advisable to refer to a geriatrician/psychiatrist/neurologist for confirmation as the diagnosis may carry medical, social and legal implications.

1.7 Clinics and practitioners under CDMP are reminded to comply with the prevailing standards in the Private Hospitals and Medical Clinics (PHMC) (Advertisement) Regulations, including not providing information to the public to solicit or encourage the use of the services provided by or at any healthcare institution.

2 Mental Health GP Partnership Programme (MHGPP) for CDMP Mental Illnesses (CDMP-MI)

2.1 Mental health conditions, i.e. Schizophrenia, Major Depression, Bipolar Disorder and Anxiety, are included in the CDMP-MI. GPs interested in making CDMP/CHAS claims for the above-mentioned conditions are required to participate in the Mental Health GP Partnership Programme (MHGPP) and attend the CDMP-MI training provided under the MHGPP to ensure that they have sufficient training and confidence in treating patients with mental health conditions.

2.2 In addition to access to CDMP/CHAS for mental health conditions, GPs are supported with the following by participating in MHGPP:

a) Psychiatric drugs at a lower cost
b) Community mental health services, such as case management and counselling
c) Direct access to specialist(s) assigned by Restructured Hospitals (RHs) to assist GPs with clinical consults

2.3 A liaison coordinator will facilitate GPs' patients' referrals between the clinic, hospital and community support services. In addition, continuing medical education (CME) talks and case discussion platforms are also regularly organised to enhance GPs' competencies in the latest treatment modalities of mental health care.

2.4 Doctors who are registered specialists in psychiatry do not need to join MHGPP and are exempted from CDMP-MI training. More details on the requirements for MHGPP are under para 1.3 of Chapter Two: Registration and Medisave Use.

2.5 For new diagnosis of mental health conditions, when in doubt, it is advisable to refer to a psychiatrist, as the diagnosis may carry medical, social and legal implications.

2.6 With effect from 1 Jan 2014, Dementia is no longer a CDMP-MI condition. Therefore, doctors who wish to manage Dementia patients under CDMP/CHAS are no longer required to participate in the MHGPP.

3 Guidelines on MediSave Use for CDMP

3.1 Only doctors and clinics/medical institutions which are accredited for MediSave use and participating in the CDMP can make MediSave claims. Doctors and participating clinics/medical institutions on the CDMP have to comply with the relevant guidelines.

3.2 Since June 2018, package claims[9] under MediSave500/700, and, by extension, CDMP have been discontinued.

3.3 MediSave use is only allowed for outpatient treatments of the approved chronic conditions in Table 1.1 and/or its associated complications. Clinics must indicate the relevant MediSave Scheme or Diagnosis of patients in the Medical Claims Authorisation Form when they make MediSave claims.

3.4 MediSave claims will be accepted only if:

[9] Package claims are upfront payments for services which have not taken place yet.

a) The patient is diagnosed with an approved chronic condition(s) listed in Table 1.1;
b) The claim must be related to the recommended care components in the management of that specific DMP or for the treatment of the condition and its complications. The doctor in-charge must clearly document this causal relationship or link between the condition and its treatment;
c) In this regard, MediSave claims will generally not be allowed for sleeping pills, slimming pills or erectile dysfunction drugs used for lifestyle purposes;
d) Under certain equivocal circumstances, the auditors will seek further clarification with the prescribing doctor and decide on acceptance of claim on a case-by-case basis;
e) There are accurate, clear and complete clinical notes and supporting documents (e.g. referrals, memos, prescriptions or medications from other institutions) to substantiate claims under CDMP. Recommended care components are expected to be documented in the doctor's clinical notes. Audits may call for clinical notes, supporting documents and recommended care components to be submitted at random. Guidelines on the recommended standards of documentation are elaborated on in Chapter Two, Section 5.
f) The patient is regularly managed by the participating clinic/doctor for the approved chronic condition(s) (generally, consultations should be performed at least once every 6 months).

3.5 Certain items including non-evidence-based treatments are not MediSave-claimable. This is to ensure that patients' MediSave dollars are judiciously used to cover recommended care components and medications. A general list (not exhaustive) of claimable and non-claimable items is included in **Table 3.1** below for reference.

Table 3.1: General List of Claimable and Non-Claimable Items/Services

Claimable	Not Claimable
• Services delivered at participating healthcare institutions (including professional services such as consultations related to the management of the approved chronic conditions and repeat prescriptions (to fill at a pharmacy without consultation))	• Telehealth or telemedicine services, unless otherwise stated via MOH circular • Consultations unrelated to the diagnosis/management of the approved chronic conditions or their complications
• Relevant investigations (laboratory and radiological) leading to the positive diagnosis[10] of approved chronic conditions,	• Investigations unrelated to the positive diagnosis, management of the approved chronic conditions or their complications

[10] This refers only to investigations that definitively establish the diagnosis of a CDMP condition, where such a definitive test is available for the condition, namely: (a) HbA1c, random plasma glucose, fasting plasma glucose and/or 2-hour 75g oral glucose tolerance test for diabetes mellitus; (b) lipid profile for lipid disorders (including use of a non-fasting lipid profile as an alternative initial screening test); (c) formal spirometry/pulmonary function test for asthma and COPD; (d) Kidney Function and/or urine protein- or albumin-creatinine ratio for CKD; (e) CT/MRI Brain for stroke; (f) DEXA scan of hip and spine for osteoporosis; and (g) electrocardiogram, stress test, transthoracic echocardiography, and/or cardiac CT angiogram for IHD. Investigations that are not definitive for the diagnosis, and/or used to rule out differential diagnoses, are not claimable.

for management of condition and/or their complications • Investigations for good prescribing practice to avoid drug-related complications	• Medical examination to meet statutory requirements and/or for administrative purposes (e.g. pre-employment, insurance, driving licence application)

Table 3.1: General List of Claimable and Non-Claimable Items/Services (continued)

Claimable	Not Claimable
	• Asymptomatic health screening and review of screening results outside of SFL e.g. STD screening, Tumour markers • Investigations without corresponding evidence that they were conducted e.g. laboratory test reports or results recorded in the case notes, or • invoice from laboratory
• Medications for the management of approved chronic conditions, their complications (e.g. gastro-protectants when prescribed with NSAIDs), and/or their risk factors (e.g. nicotine replacement therapy for smoking cessation)	• Medications unrelated to the diagnosis/management of the approved chronic conditions or their complications • Traditional or complementary medicine (e.g. massage therapy, chiropractic, homeopathy, acupuncture, herbal medicine, Ayurveda) • Health supplements, dietary supplements and vitamins (except for cases with established deficiencies[11]) • Sedatives-hypnotics (e.g. Benzodiazepines, zolpidem, zopiclone)[12] • Lifestyle-modifying medications (e.g. hair-loss or weight-loss medications) except where clinically indicated based on prevailing CPGs (e.g. weight-loss medications for obese patients) • Excessive quantities of medications (i.e. more than medically necessary and/or exceeding recommended prescribing limits according to available clinical guidelines) • Non-HSA registered medications • Off-label use of medications • Moisturisers, except where clinically indicated based on the latest CPGs, ACGs issued by MOH, and/or best available evidence-based practice

[11] In the absence of laboratory tests to definitively diagnose clinical deficiency, other supporting documented evidence (e.g. patient history, physical exam and/or other lab tests) can be accepted to support the clinical diagnosis of deficiency.

[12] It is recommended that other medications with addictive potential should be prescribed according to the latest national guidelines (e.g. National Guidelines for the Safe Prescribing of Opioids 2021 (First Edition)).

Table 3.1: General List of Claimable and Non-Claimable Items/Services (continued)

Claimable	Not Claimable
	• Topical creams, except (i) Prescription Only Medicines as classified by HSA; (ii) where clearly indicated in the treatment notes; and (iii) where clinically indicated based on the latest CPGs, ACGs issued by MOH, and/or best available evidence-based practice • Vaccinations not listed as a recommended care component of a CDMP chronic condition • Medications delivered/collected on a patient's behalf which do not meet the requirements detailed in MOH Circular No. 222/2020 or 223/2020[13]
• Consumables for the purposes of drug/treatment administration as part of care delivery, for the management of approved chronic conditions, which are delivered at participating healthcare institutions[14]	• Consumables or dressing products for home use (i.e. not part of care delivery at the participating healthcare institution), unless otherwise stated in the CDMP handbook
• Nursing and allied health services as referred by physicians in accordance with patients' integrated care plans, and which fulfil the criteria in para 3.6.	• Rental/purchase of medical devices, such as blood pressure monitoring machines, splints, nasogastric tubes and ambulatory devices (e.g. walking sticks, wheelchairs), unless otherwise stated in the CDMP handbook • Non-healthcare services (e.g. cooking courses, gym classes) • Home meal delivery, transport • Employment of caregiver or nursing aide, and all related costs

*More disease-specific examples of claimable and non-claimable items/services can be found in the Disease-Specific Clinical Guidelines.

3.6 Support services should meet the following criteria for them to be claimable. A general but non-exhaustive list of claimable and non-claimable support services is included in **Table 3.2** below for reference.

[13] Circulars can be found on mohalert.moh.gov.sg

[14] Only for approved consumables collected at the outpatient dispensary. The MCR number of ordering doctor (if ordered by the doctor) and other requisite information for Medisave claims (e.g. diagnosis, visit date) need to be documented. Patient's case notes/records must indicate that the patient meets the criteria to claim for the specific consumables and the total quantity claimed for. Approved consumables can only be claimed if: (i) the approved consumable is listed on a prescription indicated for CDMP claim (i.e. CDMP prescription), and the patient is verified to have the associated CDMP condition; or (ii) the approved consumable is not listed on a CDMP prescription but the patient requests for it when filling out the CDMP prescription for the associated CDMP condition. For such situations, pharmacists may add on approved consumables related to the CDMP prescription for MediSave claim, even if they are not listed in the prescription.

a) The support service should be widely regarded as a mainstream healthcare or support service;
b) There is evidence of the support service being effective in contributing to the positive management of the chronic disease concerned;
c) The support service should be delivered by qualified personnel, or where relevant, an accredited professional[15]; and
d) The support service provided should be within the scope of practice empowered under the relevant professional registration Act (if relevant), or otherwise generally accepted for the professional based on his/her professional qualifications.

Table 3.2: Examples of Claimable and Non-Claimable Support Services

Claimable

• Nursing and related services delivered by registered nurses
  ○ Including nursing care (e.g. diabetic foot wound care, nasogastric tube care), nurse counselling
• Allied health services
  ○ Therapy services, including physiotherapy, occupational therapy, speech therapy services delivered by registered Allied Health Professionals (AHPs)
  ○ Services by non-registered professions specified in the Allied Health Professions Act, including podiatry, dietetics, psychotherapy, prosthetics, orthotics
• Other key support services for chronic disease care
  ○ Including diabetic retinal photography, diabetic foot screening, smoking cessation

Not Claimable
• Exercise support • Stress management • Sleep management • Commercial weight management programmes • Health coaching • Cooking courses • Gym classes

3.7 The maximum amount that can be withdrawn for chronic disease treatments/attendances taking place from 1 January 2021[16] and thereafter is $500 per patient per calendar year for patients with simple chronic conditions, and $700 per patient per calendar year for patients with complex chronic conditions (refer to **Table 3.3** below).

[15] Accredited professionals include doctors, dentists, nurses, physiotherapists, occupational therapists, speech therapists, diagnostic radiographers, radiation therapists, optometrists and opticians.
[16] Previously, from 1 Jun 2018 to 31 Dec 2020, patients were allowed to withdraw up to $500 per MediSave account per calendar year for chronic disease treatments/attendances.

Table 3.3 Simple Chronic and Complex Chronic Patients under CDMP

Patient Status	Description	Withdrawal Limit
Complex Chronic	Patients who have: (a) Received treatment for two or more CDMP conditions in a visit; or (b) Received treatment for at least one CDMP condition with a recognised complication (Please refer to MOH Circulars for the latest list of recognised complications.)	$700 per year
Simple Chronic	Any other CDMP patient who does not meet the criteria above	$500 per year

3.8 Eligible patients can use their personal MediSave account and approved family members' MediSave accounts for payment of their chronic disease treatments, up to the patient's annual withdrawal limit. Approved family members include the spouse, parent or child of the patient. Patients who are Singapore Citizens or Permanent Residents will also be able to use their siblings' and grandchildren's MediSave accounts to pay for their treatment.

Scenario 1

Mr Lim is a retiree with 2 working children. He is suffering from COPD without complications and has MediSave from his earlier years of work. Mr Lim can make use of a maximum of $500 of MediSave for his treatments. He may tap on his own, his spouse's or his children's MediSave accounts to pay for his outpatient treatment for COPD, up to the $500 limit.

Scenario 2

The grandmother and parents of Ms Tan are suffering from diabetes without complications. However, they have no MediSave. Ms Tan can make use of $500 from her MediSave to pay for the diabetes treatment of each of her 3 elders. In total, she will be able to utilise up to $1,500 of her MediSave each year.

Scenario 3

Mdm Haslina is a working adult and has no children. She has hypertension and asthma and can use up to a total of $700 (annual withdrawal limit for complex chronic patient) from her and her spouse's MediSave accounts to pay for treatment related to hypertension and asthma.

Scenario 4

Mr Lim and his wife, Mrs Lim, are both diagnosed with diabetes. Mr Lim has already withdrawn $300 from his MediSave account to pay for the treatment of his diabetic condition in the current year, while Mrs Lim has already withdrawn $500 from her own MediSave account to pay for her own diabetic treatment.

If Mr Lim is a complex chronic patient:

- Mr Lim can withdraw up to an additional $400 from his own MediSave account for the treatment of his chronic diseases; or
- Mrs Lim can withdraw up to $400 from her MediSave account for Mr Lim's treatment.

If Mr Lim is a simple chronic patient:

- Mr Lim can withdraw up to an additional $200 from his own MediSave account for the treatment of his chronic diseases; or
- Mrs Lim can withdraw up to $200 from her MediSave account for Mr Lim's treatment.

3.9 Patients may have employer benefits and outpatient insurance that can be used to pay for outpatient treatments. Bills should be paid using employers' benefits and any relevant insurance that the patient may have first, before claiming from MediSave for the balance.

3.10 In cases where only part of the chronic disease outpatient treatment bill is payable by employer companies and the patient chooses to use MediSave for the balance of the bill, clinics would:

a) Follow the current arrangements it has with the employer to seek payment; and
b) Help patients submit the MediSave claim.

4 Guidelines on Use of CHAS Subsidy for CDMP Conditions

4.8 Only doctors and clinics participating in CHAS can make CHAS subsidy claims.

4.9 Doctors and participating clinics in CHAS must comply with the guidelines in this handbook.

4.10 The guidelines in paras 3.1 to 3.6 on CDMP apply to CHAS claims for CDMP conditions as well. Similar to para 3.7, CHAS patients can access a higher subsidy limit if they meet the definition of a Complex Chronic patient, as defined in **Table 3.3**.

4.11 For patients who are eligible for both employee benefits and CHAS, the CHAS subsidies will apply before the employee benefits.

DISEASE-SPECIFIC CLINICAL GUIDELINES

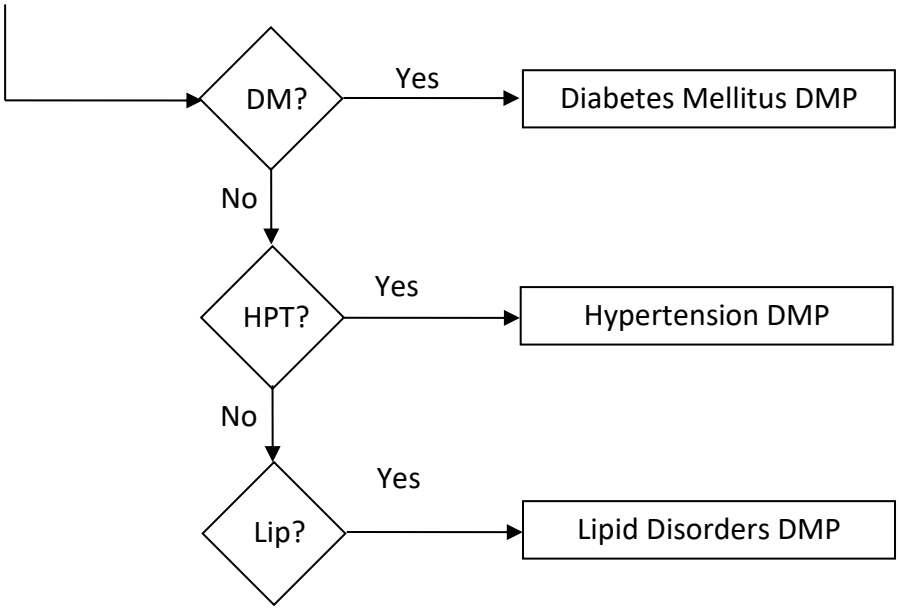
5 Disease-Specific Clinical Guidelines for the CDMP Conditions

The Disease-Specific Clinical Guidelines

*Conditions under the CDMP-MI

Annex A

Enrolling patients with Diabetes Mellitus, Hypertension, and/or Lipid Disorders



1. Diabetes Mellitus and Pre-diabetes

(Requires reporting of clinical indicators as detailed in Chapter Four: Capture and Submission of Clinical Data)

Diabetes mellitus is a heterogeneous metabolic disorder characterised by presence of hyperglycaemia resulting from defects in insulin secretion, insulin action, or both. Chronic hyperglycaemia is associated with long-term sequelae resulting from damage to various organs and tissues, particularly the kidney, eye, nerves, heart and blood vessels.

Screening for Diabetes

The recommended investigations for screening of diabetes in asymptomatic individuals aged ≥40 and/or with risk factors for diabetes are as follows.

1. Fasting plasma glucose (FPG)
2. HbA1c

If HbA1c is used as the screening test, the following interpretation and follow-up testing is recommended.

Table 3.4: Interpretation of HbA1c Results and Recommended Follow-up Tests

HbA1c Result	Interpretation and Recommended Follow-up Tests
≤ 6.0%	**Low probability of diabetes** No further tests needed if there are no symptoms of diabetes. Further testing with an FPG or 2-hr post challenge plasma glucose is recommended in the presence of clinical suspicion of diabetes
6.1% to 6.9%	**Proceed to conduct FPG or oral glucose tolerance test (OGTT)** Refer to section on diagnosing diabetes and pre-diabetes
≥ 7.0%	**High probability of diabetes** No further tests needed for diagnosis of diabetes

Diagnosing Diabetes and Pre-Diabetes

In patients with hyperglycemic crisis (e.g. diabetic ketoacidosis), diabetes mellitus can be diagnosed without further testing.

In patients with typical symptoms (e.g. polydipsia, polyuria), diabetes mellitus can be diagnosed if any one of the following is present.

1. Casual plasma glucose ≥ 11.1 mmol/L
2. FPG ≥ 7.0mmol/L
3. 2-hour post-challenge plasma glucose ≥ 11.1 mmol/L
4. HbA1c ≥ 7.0%

Other individuals should have a repeat test on a subsequent day. For these patients, when two different tests are available and the results are above the diagnostic thresholds, the diagnosis of diabetes is confirmed.

Pre-diabetes is defined by glycaemic levels that are higher than normal, but lower than the diabetes thresholds. Patients are asymptomatic but the condition puts individuals at higher risk of developing type 2 diabetes and cardiovascular disease. The pre-diabetic state includes impaired fasting glucose (IFG) and impaired glucose tolerance (IGT), which can be diagnosed as follows.

Table 3.5: Definition of Pre-diabetes by Glycaemic Levels

Pre-diabetes	Fasting Plasma Glucose (FPG) (mmol/L)~	2-hr Post-challenge Plasma Glucose (mmol/L)*
IFG	6.1 – 6.9	< 7.8
IGT	< 7.0	7.8 – 11.0

*2-hour 75g oral glucose tolerance test (OGTT)
~All patients with FPG between 6.1 to 6.9 will require a follow-up 2-hr Post-challenge Plasma Glucose

Part Ia: Recommended Care Components for Diabetes Mellitus

Recommended Care Components	Minimum Frequency*	Remarks
Blood Pressure Measurement˜	Twice a year	For those with hypertension, an acceptable treatment-initiation and target blood pressure is generally <140/80mmHg; Clinicians may personalise the targets accordingly based on patients' risk factors
Weight and BMI Assessment˜	Twice a year	Keep <23kg/m^2 (For Non-Asian population, keep BMI <25 kg/m^2)
Lipid Profile˜	Annually	All patients should be stratified according to their cardiovascular risk (as recommended in the Lipids CPG); Targets of treatment should be personalised by levels of risk
Glycated Haemoglobin (HbA1c)˜	Twice a year	General HbA1c target of ≤7.0%, but target of treatment should be personalised (e.g. for elderly)
Kidney Assessment˜ (i) Serum Cr and/or eGFR, **and** (ii) Urine Albumin-Creatinine Ratio (uACR) or Urine Protein-Creatinine Ratio (uPCR)	Annually	Good glycaemic control and good BP control with Angiotensin Converting Enzyme (ACE) inhibitor or Angiotensin Receptor Blocker (ARB) preferred to slow progression of diabetic nephropathy Annual screening of (i) serum Cr and/or eGFR **and** (ii) uACR in all patients, or uPCR if significant levels of proteinuria (as defined in evidence-based practice guidelines)

Part Ia: Recommended Care Components for Diabetes Mellitus (continued)

Recommended Care Components	Minimum Frequency*	Remarks
Eye Assessment~	Annually	Includes retinal photography and visual acuity Patients with T1 DM: First assessment within 3-5 years after diagnosis of diabetes once patient is aged ten years or older, then annually Patients with T2 DM: First assessment at diagnosis, then annually
Foot Assessment~	Annually	Screen for peripheral neuropathy, peripheral vascular disease, bone, joint, skin and nail abnormalities, and poor footwear
Smoking Assessment~	Annually for smokers; Once-off for non-smokers, unless there is a change in smoking habit	Assessment on smoking habits (estimated sticks/day; zero for non- or ex-smoker) and provide smoking cessation counselling
Cardiac Assessment	At diagnosis before initiating medications	Includes baseline ECG
Influenza Vaccination#	Annually or per season	As recommended under the National Adult Immunisation Schedule (NAIS) and National Childhood Immunisation Schedule (NCIS)
Pneumococcal Vaccination (PPSV23 only)#	1 or 2 doses depending on age and other medical conditions	As recommended under the National Adult Immunisation Schedule (NAIS) and National Childhood Immunisation Schedule (NCIS)

*More frequently if clinically indicated
~This is also a reportable clinical indicator
#This is also a non-reportable clinical indicator

Part Ib: Recommended Care Components for Pre-diabetes

Recommended Care Components	Minimum Frequency*	Remarks
Blood Pressure Measurement~	Annually	Clinicians may personalise the treatment target accordingly based on patients' risk factors
Weight and BMI Assessment~	Twice a year	Keep <23kg/m^2 (For Non-Asian population, keep BMI <25 kg/m^2)
Lipid Profile~	Annually	All patients should be risk stratified (as recommended in the Lipids CPG); Targets of treatment should be personalised by levels of risk

Part Ib: Recommended Care Components for Pre-diabetes (continued)

Recommended Care Components	Minimum Frequency*	Remarks
Blood Glucose Test (FPG/ 2-hour OGTT/ HbA1c) ~	Twice a year	FPG, 2-hour OGTT, or HbA1c as appropriate to monitor glycaemic control and screen for diabetes If FPG ≥ 7.0 mmol/L, 2-h glucose on OGTT ≥ 11.1 mmol/L, or HbA1c ≥ 7%, proceed to manage as per T2DM. <u>For Pre-DM Patients on Metformin:</u> HbA1c is required for patients on metformin to monitor treatment response.
Kidney Function Assessment~ (i) Serum Cr and/or eGFR	Annually (only if on metformin)	<u>For Pre-DM Patients on Metformin</u> Measure renal function before initiating metformin. Yearly screening of serum Cr and/or eGFR for patients on Metformin; may be done more frequently if there is evidence of renal impairment. If there is evidence of renal impairment to support a diagnosis of Chronic Kidney Disease (CKD), the recommended care components under CKD should be adhered to.
Smoking Assessment~	Annually for smokers; Once-off for non-smokers, unless there is a change in smoking habit	Assessment on smoking habits (estimated sticks/day; zero for non- or ex-smoker) and provide smoking cessation counselling

*More frequently if clinically indicated
~This is also a reportable clinical indicator

Part II: Consideration for Collaborative Care

Specialist Referral Recommended
Special Patient Population • Children and adults with suspected Type 1 DM • Pregnant women or those planning pregnancy who require pre-conception intensive glycaemic control • Patients with morbid obesity who are open to the option of intensive weight management including bariatric surgery

Part II: Consideration for Collaborative Care (continued)

Specialist Referral Recommended
Complications Requiring Active Specialist Management

- Nephrology referral if any of the following:
  - Patients with Stage 3b or higher CKD
  - Unexpected or rapid decline in renal function
  - Difficult management issues (e.g. with blood pressure or hyperkalaemia control)
  - Atypical features (e.g. haematuria, presence of casts in the urine sediment, presence of renal bruit, nephrotic range proteinuria (>3g/day),
- Ophthalmology referral if any of the following:
  - Hard exudates/retinal thickening within one-disc diameter of the fovea (diabetic macular oedema)
  - Severe non-proliferative diabetic retinopathy
  - Unexplained drop in visual acuity/eye findings

  Early referrals
  - Neovascularisation from proliferative diabetic retinopathy
  - Pre-retinal and/or vitreous haemorrhage
  - Rubeosis iridis (new vessels on the iris)

  Urgent referrals
  - Sudden loss of vision
  - Retinal detachment
  - Neovascular glaucoma
- Foot-care team[17] (podiatry, orthopaedics surgery, vascular surgery) if any of the following:
  - Ulceration, gangrene, severe foot infection
  - Suspected acute Charcot's foot
  - Vascular claudication

Consider Specialist Input

High Risk Individuals

- Individuals with or at risk for recurrent severe hypoglycaemia*, diabetic ketoacidosis (DKA) or hyperglycaemic hyperosmolar state (HHS) regardless of HbA1c, for specialist input on personalised targets and medication titration to reduce such risks
- Patients with difficulty achieving satisfactory control of blood glucose and/or other risk factors

Consider Collaborative Care or Anchoring Care with Primary Care Physician

In patients who:

- Can achieve satisfactory HbA1c control and/or for optimisation/management of glycaemic control
- Can recognise and manage episodes of hypoglycaemia
- Complications of DM are stable/under regular review by the appropriate specialist.

*Severe hypoglycaemia refers to hypoglycaemia where assistance from another person is required.

[17] Providers should also refer to the prevailing ACE Clinical Guidance (ACG) on Foot Assessment in People with Diabetes Mellitus

Part III: Claimable/Non-Claimable Items

Specific Examples of Claimable/Non-Claimable:
Claimable[18] • Drugs related to the treatment of DM complications, e.g. Ischaemic Heart Disease, Chronic Renal Failure, Neuropathic pains (e.g. Amitriptyline and Carbamazepine) and Peripheral Vascular Diseases (e.g. Pentoxifylline) • Items involved in drug administration, such as insulin pens, insulin pumps, syringes and needles dispensed in appropriate quantities, necessary for the patient's own use • Drug therapy for weight management (e.g. orlistat), as an adjunctive to lifestyle modification and combined with diet and physical activity, when BMI is ≥27.5 kg/m^2 • Smoking cessation • Lancets and glucose test strips for self-monitoring of blood glucose levels for Type 1 diabetes patients and Type 2 diabetes patients on insulin
Non-Claimable • Other items involved in disease monitoring, such as lancing devices, glucometers and blood pressure monitoring equipment • Slimming pills if BMI < 27.5kg/m^2 and drugs for erectile dysfunction • Vitamins/supplements except for cases with deficiency e.g. peripheral neuropathy secondary to metformin-related Vitamin B12 deficiency

References

Pre-diabetes and Diabetes

1. ACE Clinical Guidance on Managing pre-diabetes – a growing health concern (updated July 2021)
2. ACE Clinical Guidance on Oral glucose-lowering agents in type 2 diabetes mellitus – an update (July 2017)
3. ACE Clinical Guidance on Initiating basal insulin in type 2 diabetes mellitus (November 2017)
4. ACE Clinical Guidance on Foot assessment in people with diabetes mellitus (June 2019)
5. MOH Clinical Practice Guidelines on Diabetes Mellitus (July 2014) – MOH Clinical Practice Guidelines[19]
6. MOH Circular No. 08/2019 on Release of New Screening Test Review Committee Guidelines, Including Changes to Diabetes Mellitus, Lipid Disorders and Cervical Cancer Screening (March 2019)

Other Related Conditions

7. MOH Clinical Practice Guidelines on Hypertension (November 2017) – MOH Clinical Practice Guidelines
8. MOH Clinical Practice Guidelines on Lipids (December 2016) – MOH Clinical Practice Guidelines
9. HPB-MOH Clinical Practice Guidelines on Obesity (June 2016) – MOH Clinical Practice Guidelines

[18] Providers should also refer to the prevailing ACE Clinical Guidance (ACG) on Managing Pre-diabetes for recommendations on the care to be provided for pre-diabetics.

[19] MOH clinical practice guidelines are considered withdrawn five years after publication unless otherwise specified in individual guidelines. Users should keep in mind that evidence-based guidelines are only as current as the evidence that supports them and new evidence can supersede recommendations made in the guidelines.

2. Hypertension

(Requires reporting of clinical indicators as detailed in Chapter Four: Capture and Submission of Clinical Data)

Blood Pressure (BP) levels are continuously related to the risk of cardiovascular disease (CVD). Even within the normotensive range, people with higher levels of BP have higher rates of CVD.

BP is characterised by large spontaneous variations. The diagnosis of hypertension should be based on multiple BP measurements taken on several separate occasions. When the systolic and diastolic BP fall into different categories, the higher category should apply.

Part I: Recommended Care Components for Hypertension

Recommended Care Components	Minimum Frequency*	Remarks
Blood Pressure Measurement~	Twice a year	
Weight and BMI Assessment~	Twice a year	Keep <23kg/m^2 (For Non-Asian population, keep BMI <25 kg/m^2)
Kidney Assessment~ (i) Serum Cr and/or eGFR, **and** (ii) Urine Albumin-Creatinine Ratio (uACR) or Protein-Creatinine Ratio (uPCR)	Annually	If patient also has DM, Angiotensin Converting Enzyme (ACE) inhibitor or Angiotensin Receptor Blocker (ARB) are preferred antihypertensives to slow progression of diabetic nephropathy Annual screening of (i) serum Cr and/or eGFR **and** (ii) uACR in all patients, or uPCR if significant levels of proteinuria (as defined in evidence-based practice guidelines)
Smoking Assessment~	Annually for smokers; Once-off for non-smokers, unless there is a change in smoking habit	Assessment on smoking habits (estimated sticks/day; zero for non- or ex-smoker) and provide smoking cessation counselling
Lipid Profile#	At baseline	All patients should be risk stratified (as recommended in the Lipids CPG) Targets of treatment should be personalised by levels of risk
Cardiac Assessment	At diagnosis before initiating medications	Includes baseline ECG

*More frequently if clinically indicated
~This is also a reportable clinical indicator
#This is also a non-reportable clinical indicator

Part II: Consideration for Collaborative Care

Specialist Referral Recommended
• Emergency or urgent treatment indicated e.g. malignant hypertension, hypertensive cardiac failure or other impending complications • Hypertension difficult to manage e.g. unusually labile BP, hypertension refractory to multiple drug regimens (3 or more) • Secondary hypertension i.e. hypertension due to an underlying cause, such as hyperaldosteronism • Hypertension in special circumstances e.g. pregnancy, young children
Consider Specialist Input
• Young hypertensive patients who are less than 30 years old • Patients suspected to have secondary causes of hypertension
Consider Collaborative Care or Anchoring Care with Primary Care Physician
• In patients who can achieve satisfactory blood pressure control and/or for optimisation/management of anti-hypertensive medication

Part III: Claimable/Non-Claimable Items

Specific Examples of Claimable/Non-Claimable:
Claimable • For patients with complications of Hypertension, such as Ischaemic Heart Disease, investigations like 2D Echocardiogram, MIBI scans • Drug therapy for weight management (e.g. orlistat), as an adjunctive to lifestyle modification and combined with diet and physical activity, when BMI is ≥27.5 kg/m2 • Smoking cessation
Non-Claimable • Purchase of blood pressure monitoring equipment

References

1. MOH Clinical Practice Guidelines on Hypertension (November 2017) – MOH Clinical Practice Guidelines
2. MOH Clinical Practice Guidelines on Lipids (December 2016) – MOH Clinical Practice Guidelines
3. HPB-MOH Clinical Practice Guidelines on Obesity (June 2016) – MOH Clinical Practice Guidelines

3. Lipid Disorders

(Requires reporting of clinical indicators as detailed in Chapter Four: Capture and Submission of Clinical Data)

Lipid disorders (dyslipidaemia) play a major role in the pathogenesis of coronary heart disease. It is a modifiable cardiovascular risk factor that may be inherited or acquired. Hypercholesterolaemia, mixed (combined) dyslipidaemia and hypertriglyeridaemia are the three commonest dyslipidaemias.

Lipid disorders can be diagnosed either through a fasting or non-fasting lipid profile, which should include total cholesterol (TC), triglycerides (TG), LDL cholesterol and HDL cholesterol. Fasting lipid profiles instead of non-fasting lipid profiles should be considered whenever there is an uncertainty over the potential validity of the results (e.g. high fat consumption prior to test, borderline TG or LDL-C levels especially if pharmacological therapy is being considered.

Common causes of secondary dyslipidaemia should be excluded in any patient presenting with dyslipidaemia.

Part I: Recommended Care Components for Lipid Disorders

Recommended Care Components	Minimum Frequency*	Remarks
Lipid Profile~	Annually	All patients should be risk stratified (as recommended in the Lipids CPG) Targets of treatment should be personalised by levels of risk
Smoking Assessment~	Annually for smokers; Once-off for non-smokers**,** unless there is a change in smoking habit	Assessment on smoking habits (estimated sticks/day; zero for non- or ex-smoker) and provide smoking cessation counselling
Serum transaminases#	Before starting statins and as clinically indicated (e.g. symptoms suggestive of hepatotoxicity, increase in statin dose)	Especially when the statin dose is increased or when combination therapy is initiated Stop the statin/fibrate if patient is symptomatic
Serum creatine kinase#	Before starting statins and as clinically indicated (e.g. muscle symptoms)	Look out for rapid increase in creatine kinase post–initiation or increase of statin or fibrate. Stop the medication if the CK is three times ULN) or at about 800 IU/L (whichever is lower)

*More frequently if clinically indicated
~This is also a reportable clinical indicator
#This is also a non-reportable clinical indicator

Part II: Consideration for Collaborative Care

Specialist Referral Recommended
Referral to A&E • If the ALT/AST is ≥ 5X ULN (upper limit of normal) or if patient is clinically ill/decompensating **Referral to Endocrinologist** • Initiation of rosuvastatin at doses higher than 20mg **Referral to Gastroenterologist** For clinical presentation of acute hepatitis
Consider Specialist Input
Consider Referral to Endocrinologist • Triglyceride level more than 4.5mmol/L despite dietary changes and maximum tolerated drug therapy • Target parameters not achieved despite maximal drug therapy • Definite or possible familial hypercholesterolemia on Simon Broome Trust diagnostic criteria (or other validated criteria) **Consider Referral to Gastroenterologist** • Pre-treatment transaminases are 1.5 to 3 times above normal range • Persistently high transaminases (at least 3 times above normal range) during statin therapy or when statin has been stopped
Consider Collaborative Care or Anchoring Care with Primary Care Physician
In patients who are: • Able to achieve satisfactory lipid control and/or for optimisation/management of lipid disorder medication

Part III: Claimable/Non-Claimable Items

Specific Examples of Claimable/Non-Claimable:
Claimable • Drugs related to the treatment of complications of lipid disorders e.g. Ischaemic Heart Disease and Peripheral Vascular Diseases (e.g. Pentoxifylline) • Omega 3 fish oils, only for patients with severe hypertriglyceridemia (e.g. TG >4.5mmol/L [400mg/dL]) where fibrates alone may not adequately lower the markedly elevated TG levels • Drug therapy for weight management (e.g. orlistat), as an adjunctive to lifestyle modification and combined with diet and physical activity, when BMI is ≥27.5 kg/m^2 • Smoking cessation
Non-Claimable • Supplements with no strong evidence for benefit in managing the condition (e.g. Red yeast supplements (Hypocol) and Co-enzyme Q10)

References

1. MOH Clinical Practice Guidelines on Lipids (December 2016) – MOH Clinical Practice Guidelines

2. HPB-MOH Clinical Practice Guidelines on Obesity (June 2016) – MOH Clinical Practice Guidelines
3. MOH Circular No. 08/2019 on Release of New Screening Test Review Committee Guidelines, Including Changes to Diabetes Mellitus, Lipid Disorders and Cervical Cancer Screening March 2019)

4. Asthma

(Requires reporting of clinical indicators as detailed in Chapter Four: Capture and Submission of Clinical Data)

Asthma is a chronic reversible airway disorder that is common in people of all ages. It can be severe and may be fatal. Asthma may present with cough, wheezing, and unexplained dyspnoea and chest tightness. Symptoms are often transient, may be persistent and tend to be worse at night or in the early mornings. Asthma symptoms may be precipitated or aggravated by upper respiratory tract infections, cigarette smoke, environmental haze, exercise, drugs (e.g. aspirin, NSAIDs, ß-blockers, ACE inhibitors), pets and occupational exposure to triggers.

A diagnosis of asthma is based on clinical presentation of characteristic symptoms and where possible, documentation of variable expiratory airflow limitation. Initiation of inhaled corticosteroids should not be delayed as these tests can be normal in mild or well controlled asthma.

The following tests can support the diagnosis of asthma:

a) Spirometry: airflow obstruction with/without a positive bronchodilator reversibility test (defined as an increase in FEV1 of ≥ 12% AND 200ml in asthmatics above 13 years old)
b) Excessive variability in twice daily peak expiratory flow (PEF) over 2 weeks (defined as > 10% in adults and > 15% in children)
c) Improvement of PEF by >20% from baseline after 4 weeks of treatment with anti-inflammatory medications (e.g. inhaled corticosteroids), and excluding recent respiratory infections in the last 28 days

Part I: Recommended Care Components for Asthma

Recommended Care Components	Minimum Frequency*	Remarks
Asthma Control Assessment (e.g. Asthma Control Test score or Global Initiative for Asthma (GINA) score)~	Twice a year	Asthma control can be assessed using a validated composite assessment tool to assess the control of asthma symptoms (e.g. validated questionnaire like the Asthma Control Test (ACT) or Global Initiative for Asthma (GINA) score). Recommended for assessment of control at every visit, for patients 4 years old and above. For those below 4 years old, proper documentation of symptom frequency and severity (e.g. daytime or night-time symptoms, whether symptoms affect the patient's sleep, feeding, activities) from patient's carer is required

Part I: Recommended Care Components for Asthma (continued)

Recommended Care Components	Minimum Frequency*	Remarks
Smoking Assessment~	Annually for smokers; Once-off for non-smokers, unless there is a change in smoking habit	Assessment on smoking habits (estimated sticks/day; zero for non- or ex-smoker) and provide smoking cessation counselling
Self-Management Education (with Written Asthma Action Plan)	At diagnosis	Check for compliance to treatment Provide and review patient's Written Asthma Action Plan when there is any change in treatment Inhaler technique assessment
Spirometry#	At or soon after diagnosis, or when clinically indicated	
Influenza Vaccination#	Annually or per season	As recommended under the National Adult Immunisation Schedule (NAIS) and National Childhood Immunisation Schedule (NCIS)
Pneumococcal Vaccination (PPSV23 only)#	1 or 2 doses depending on age and other medical conditions	As recommended under the National Adult Immunisation Schedule (NAIS) and National Childhood Immunisation Schedule (NCIS)

*More frequently if clinically indicated
~This is also a reportable clinical indicator
#This is also a non-reportable clinical indicator

Part II: Consideration for Collaborative Care

Specialist Referral Recommended

Control: Failure to achieve asthma control despite optimal treatment

- Patients who are currently on or recently stopped daily oral corticosteroid therapy to achieve control
- History of near-fatal asthma requiring intubation and ventilation
- Severe asthma requiring step 4 care and yet experiencing exacerbation despite compliance to treatment

Control: Failure to achieve asthma control despite optimal treatment

- Poorly controlled asthmatics with ≥ 2 hospitalisations and/or requires ≥ 2 courses of burst therapy with oral corticosteroids in the past one year

Confusing Signs and Symptoms

- Suspected occupational asthma will require further diagnostic determination of the industrial trigger agent
- Patient with atypical signs and symptoms such as unilateral wheeze to exclude other tracheobronchial pathology

Children

- Has poor asthma control and/or frequent urgent care needs
- Diagnosis is uncertain

Part II: Consideration for Collaborative Care (continued)

Consider Specialist Input
Co-Morbidity • Concurrent heart failure which may complicate management • Concurrent active GERD which may mimic asthma
Consider Collaborative Care or Anchoring Care with Primary Care Physician
In patients who: • Require symptom monitoring and optimisation/management of asthma medications • Require social support to cope with their disease

Part III: Claimable/Non-Claimable Items

Specific Examples of Claimable/Non-Claimable:
Claimable • Investigations for management of the disease and complications (e.g. CXR, pulmonary function tests, allergy tests) • Investigations for good prescribing practice to avoid drug-related complications (e.g. serum theophylline) • Items involved in drug administration, such as spacers necessary for the patient's own use • Smoking cessation
Non-Claimable • Investigations unrelated to the diagnosis or follow-up of asthma • Non-evidence-based investigations such as hand-held spirometry

References

1. ACE Clinical Guidance on Asthma – optimising long-term management with inhaled corticosteroid (October 2020)

5. Chronic Obstructive Pulmonary Disease (COPD)

(Requires reporting of clinical indicators as detailed in Chapter Four: Capture and Submission of Clinical Data)

Chronic Obstructive Pulmonary Disease (COPD) is a heterogeneous disorder characterised by airflow obstruction that is not fully reversible. The airflow limitation is usually both progressive and associated with exposure to noxious particles or gases. Smoking is by far the most important risk factor.

Patients may present with chronic productive cough and breathlessness. Acute exacerbations of COPD may require hospitalisation. The prevalence of COPD is highest after age 50, and is generally higher in men than women.

A pulmonary function test/spirometry result will establish the diagnosis of COPD for CDMP/CHAS purposes.

Part I: Recommended Care Components for COPD

Recommended Care Components	Minimum Frequency*	Remarks
Weight and BMI Assessment~	Annually	Nutritional intervention should be considered in all COPD patients with BMI <18.5kg/m^2 or significant involuntary weight loss (>10% during the last 6 months or > 5% in the past month)
COPD Assessment Test (CAT) Score~	Annually	
Smoking Assessment~	Annually for smokers; Once-off for non-smokers, unless there is a change in smoking habit	Assessment on smoking habits (estimated sticks/day; zero for non- or ex-smoker) and provide smoking cessation counselling
Influenza Vaccination~	Annually or per season	As recommended under the National Adult Immunisation Schedule (NAIS)
Self-Management Education	At diagnosis	Educate on what to do during acute exacerbations; Inhaler technique assessment
Spirometry#	At or soon after diagnosis	
Pneumococcal Vaccination (PPSV23 only)#	1 or 2 doses depending on age and other medical conditions	As recommended under the National Adult Immunisation Schedule (NAIS)

*More frequently if clinically indicated
~This is also a reportable clinical indicator
#This is also a non-reportable clinical indicator

Part II: Consideration for Collaborative Care

Specialist Referral Recommended
Severe Cases • Rapidly progressive course of disease • Acute exacerbation of COPD not responsive to therapy • Development of new symptoms (e.g. haemoptysis) or new physical signs (e.g. cyanosis, peripheral oedema) • End stage COPD (requiring long term oxygen therapy or considering surgery)
Consider Specialist Input
Severe or Complex Cases • Severe COPD (i.e. FEV1<50% predicted) • Frequent exacerbations (e.g. two or more a year or at least one leading to hospitalisation in the previous year) despite compliance to treatment
Consider Collaborative Care or Anchoring Care with Primary Care Physician
In patients who: • Require follow-up monitoring for onset of new symptoms, decreased effort tolerance, adherence to medication and smoking cessation advice

Part III: Claimable/Non-Claimable Items

Specific Examples of Claimable/Non-Claimable:
Claimable • Drugs related to the treatment of complications of COPD • Items involved in drug administration, such as spacers and accompanying masks dispensed in appropriate quantities, necessary for the patient's own use • Investigations for good prescribing practice to avoid drug-related complications (e.g. serum theophylline) • Pulmonary rehabilitation • Smoking cessation
Non-Claimable • Medications not approved for COPD, including mast cell stabilisers (e.g. Ketotifen) • Investigations unrelated to the diagnosis or follow-up of COPD • Non-evidence based investigations such as hand-held spirometry • Purchase of oxygen tanks, nebulisers or other home nursing equipment

References

1. ACE Clinical Guidance on Diagnosing chronic Obstructive Pulmonary Disease – a systematic approach (7 November 2018)
2. ACE Clinical Guidance on Managing stable chronic obstructive pulmonary disease – focusing on inhalers (28 Sep 2018)
3. MOH Clinical Practice Guidelines on Chronic Obstructive Pulmonary Disease (Dec 2017) – MOH Clinical Practice Guidelines

6. Chronic Kidney Disease (Nephritis/Nephrosis)

(Requires reporting of clinical indicators as detailed in Chapter Four: Capture and Submission of Clinical Data)

Haematuria and proteinuria are the hallmarks of glomerular disease. In addition, hypertension, impaired kidney function and fluid retention can be present to varying extents. The nature and severity of the underlying glomerular injury often dictate the nature and severity of these symptoms.

Conditions covered include (a) Chronic Glomerulonephritis (presenting as nephritic or nephrotic syndromes), (b) Nephropathies (e.g. secondary to underlying diabetes or other conditions) and (c) Chronic Kidney Diseases (with or without known underlying aetiology).

Part I: Recommended Care Components for Chronic Kidney Disease (Nephritis/Nephrosis)

Recommended Care Components	Minimum Frequency*	Remarks
Blood Pressure Measurement~	Twice a year	ACE-I and ARBs should be used for BP control when proteinuria is present
Kidney Function – eGFR and/or Serum Creatinine~	Annually	If eGFR is submitted, it should be using the MDRD formula; Serum Creatinine to be submitted for calculation (for calculation) if lab does not generate MDRD-eGFR
Urinary Protein – Urine Protein Creatinine Ratio (uPCR) or Albumin-Creatinine Ratio (uACR)~	Annually	Annual screening of uACR in all patients, or uPCR if significant levels of proteinuria (as defined in evidence-based practice guidelines)
Influenza Vaccination#	Annually or per season	As recommended under the National Adult Immunisation Schedule (NAIS) and National Childhood Immunisation Schedule (NCIS)
Pneumococcal Vaccination (PPSV23 only)#	1 or 2 doses depending on age and other medical conditions	As recommended under the National Adult Immunisation Schedule (NAIS) and National Childhood Immunisation Schedule (NCIS) 1 dose of PCV13 is also recommended for individuals who are immunosuppressed

*More frequently if clinically indicated
~This is also a reportable clinical indicator
#This is also a non-reportable clinical indicator

Part II: Consideration for Collaborative Care

Specialist Referral Recommended
Significant Proteinuria • Urine protein > 1 g/day (or its equivalent, i.e. uPCR > 100mg/mmol or uACR > 70mg/mmol) **Persistent Haematuria** **Declining Kidney Function** • eGFR < 45 ml/min/1.73 m² or rapid decline (> 5 ml/min/1.73 m² per year) **Difficult BP Control** • BP>150/90mmHg despite 3 anti-hypertensive medications at maximal doses
Consider Collaborative Care or Anchoring Care with Primary Care Physician
In patients who: • Are able to reach individualised BP target reached based on severity of glomerulonephritis and proteinuria • Have stable kidney function (decline <30% over 4-month follow-up) • Are not hyperkalaemic

Part III: Claimable/Non-Claimable Items

Specific Examples of Claimable/Non-Claimable:
Claimable • Pre- and post-dialysis investigations • The treatment of complications, such as renal osteodystrophy, as well as complications of dialysis • Drug therapy for weight management (e.g. orlistat), as an adjunctive to lifestyle modification and combined with diet and physical activity, when BMI is ≥27.5 kg/m2 • Smoking cessation
Non-Claimable • Unrelated investigations, e.g. myeloma panels • Transplant-related investigations and/or procedures

CDMP-Mental Illnesses

(While clinical indicator submission is not currently required, clinicians are required to document these assessments in case notes)

7. Schizophrenia is a mental illness characterised by delusions, hallucinations, disorganised speech, disorganised or catatonic behaviour, and negative symptoms. Other psychotic disorders and organic brain disorders should be excluded.

8. Major Depression is a mental illness characterised by low mood, anhedonia, significant weight loss/gain, insomnia, psychomotor agitation or retardation, fatigue or loss of energy, feeling of worthlessness or inappropriate guilt, diminished ability to think or concentrate, and recurrent thoughts of suicide. Other milder psychiatric conditions, organic conditions or prescription medication-induced depression should be excluded.

9. Bipolar Disorder is a mental illness characterised by episodes of mania and depression. During acute episodes, there may be either an elevation of mood with increased energy and activity, or a lowering of mood with decreased activity. Manic episodes may last between two weeks and five months (with median duration of four months), while depressive episodes may last longer.

10. Anxiety is an emotion experienced by everyone in everyday life to perceived threats, but it is considered to be a disorder when it is of greater intensity and/or duration than would be expected in the given circumstances, affects daily life, gives rise to unexplained physical symptoms, or leads to avoidance of situations and places.

In order to provide greater support (e.g. professionally as well as drugs) for general practitioners (GPs) managing patients with mental illness, GPs are required to participate in the Mental Health GP Partnership Programmes with Restructured Hospitals before CDMP/CHAS claims can be made.

** Anxiety disorders claimable under CDMP/CHAS are General Anxiety Disorder, Panic Disorder, Phobic Anxiety Disorders, Obsessive-Compulsive Disorder, and Post-traumatic Stress Disorder.*

Part Ia: Recommended Care Components for all Mental Illnesses

Recommended Care Components	Minimum Frequency*	Remarks
Clinical Global Impression (CGI) Scale#	Annually	CGI assessment for • Severity (Scores 1-7) • Clinical improvement (Scores 1-7) *1 indicates "normal/no mental illness" or "very much improved"
Consultations for CDMP Mental Health	Twice a year	Consultation includes assessment for symptoms, response and adherence to medications, psychosocial interventions, risk of harm to self or others, general physical health and basic emotional support
Global Assessment of Functioning (GAF) score#	Annually	
Sheehan Disability Scale (SDS) #	Annually	

*More frequently if clinically indicated
#This is also a non-reportable clinical indicator

Part Ib: Additional Recommended Care Components for Major Depression

Recommended Care Components	Minimum Frequency*	Remarks
PHQ-9 score#	At the intake assessment, prior to step-down/discharge and 6-monthly	

*More frequently if clinically indicated
#This is also a non-reportable clinical indicator

Part Ic: Additional Recommended Care Components for Schizophrenia

Recommended Care Components	Minimum Frequency*	Remarks
Monitoring for metabolic side effects (e.g. fasting blood glucose and lipid profile)#	Annually	Only for patients with Schizophrenia on atypical antipsychotic medications

*More frequently if clinically indicated
#This is also a non-reportable clinical indicator

Part II: Consideration for Collaborative Care

a) Schizophrenia

Specialist Referral Recommended
Initial assessment • Assessment, diagnosis and initiation of treatment, when in doubt **High Risk Individuals** • Risk of violence to self or others • Unstable/uncontrolled symptoms, e.g. recent hospitalisation within last 6 months
Consider Specialist Input
Special Patient Population • Pregnant, paediatric or geriatric patients • Forensic or medico-legal issues involved **Complex Cases** • Unexpected changes in symptomatology • Drug-related complications • Treatment resistance
Consider Collaborative Care or Anchoring Care with Primary Care Physician
Follow up • Monitoring for adherence, early signs of relapse, medication side effects and medication adjustment • Optimisation of metabolic risk factors (especially for patients on anti-psychotics)

b) Major Depression and c) Bipolar Disorder

Specialist Referral Recommended
Initial assessment • Assessment, diagnosis and initiation of treatment, when in doubt **High Risk Individuals** • Patients experiencing manic episode • Risk of violence to self or others, especially patients with suicidal risk • Having psychosis (hallucinations or odd beliefs) • Symptoms of catatonia (refusing to talk, eat or drink) • Need for hospitalisation **Failure of treatment** • Failure of one or two trials of medication • Need for augmentation or combination therapy (e.g. with mood stabilisers, psychotherapy) • Need for specialised treatment (e.g. Electroconvulsive treatment)

Part II: Consideration for Collaborative Care (continued)

c) Major Depression and c) Bipolar Disorder

Consider Specialist Input
Special Patient Population • Pregnant or paediatric patients • Forensic or medico-legal issues involved **Complex Cases** • Complicated by medical, psychiatric and/or psychosocial co-morbidities, including addiction disorders and substance abuse • Unstable/uncontrolled symptoms, e.g. recent hospitalisation within last 6 months
Consider Collaborative Care or Anchoring Care with Primary Care Physician
Follow up • Monitoring for adherence, early signs of relapse, medication side effects and medication adjustment • Optimisation of metabolic risk factors (especially for patients on anti-psychotics)

d) Anxiety

Specialist Referral Recommended
Initial assessment • Assessment, diagnosis and initiation of treatment, when in doubt **High Risk Individuals** • Patients with suicidal risk • Unstable/uncontrolled symptoms, e.g. recent hospitalisation within last 6 months **Failure of treatment** • Marked functional impairment, disruptive personality disorders • Failure of one or two trials of medication • Need for hypnotics (e.g. Benzodiazepines, Zopiclone) and/or formal psychotherapy
Consider Specialist Input
Special Patient Population • Paediatric patients **Complex Cases** Complicated by medical, psychiatric and/or psychosocial co-morbidities, including addiction disorders and substance abuse
Consider Collaborative Care or Anchoring Care with Primary Care Physician
Monitoring for adherence, early signs of relapse, medication side effects and medication adjustment

Part III: Claimable/Non-Claimable items

Applicable to all Mental Illnesses

Specific Examples of Claimable/Non-Claimable:
Claimable • Treatments such as Psychological Therapy, Electro-Convulsive Therapy (ECT), Occupational Therapy, Physiotherapy and Speech Therapy
Non-Claimable • Sedatives-hypnotics

11. Stroke

(While clinical indicator submission is not currently required, clinicians are required to document these assessments in case notes)

Cerebrovascular disease (CVD) is a heterogeneous disease. There are clear pathological sub-types – transient ischaemic attack (TIA), cerebral infarction, primary intracerebral haemorrhage and subarachnoid haemorrhage – with over 100 potential underlying causes. It may affect men and women of any age and can manifest as a minor episode lasting less than 24 hours (TIA), to a major life threatening or disabling event, and even death. Survivors of strokes may make a complete recovery or have varying degrees of disability.

Part I: Recommended Care Components for Stroke

Recommended Care Components	Minimum Frequency*	Remarks
Thromboembolism Risk Assessment#	As clinically indicated	Evaluate for atrial fibrillation, cardiac murmurs, fasting glucose and need for anti-thrombotic therapy
Rehabilitation Need Assessment	At baseline	
Blood Pressure Measurement#	Twice a year	
Lipid Profile#	Annually	All patients should be risk stratified (as recommended in the Lipids CPG) Targets of treatment should be personalised by levels of risk
Smoking Assessment#	Annually for smokers; Once-off for non-smokers, unless there is a change in smoking habit	Assessment on smoking habits (estimated sticks/day; zero for non- or ex-smoker) and provide smoking cessation counselling
Influenza Vaccination#	Annually or per season	As recommended under the National Adult Immunisation Schedule (NAIS)

*More frequently if clinically indicated

#This is also a non-reportable clinical indicator

Part II: Consideration for Collaborative Care

Specialist Referral Recommended
• New (suspected) onset of TIA or Stroke • New onset of atrial fibrillation or cardiac murmurs requiring further evaluation
Consider Collaborative Care or Anchoring Care with Primary Care Physician
In patients who are • On long term anticoagulation (i.e. warfarin) for dose adjustment • On anti-platelet therapy and require continued management of their cardiovascular risk factors

Part III: Claimable/Non-Claimable Items

Specific Examples of Claimable/Non-Claimable:
Claimable • Treatment of stroke complications such as depression • Drug therapy for weight management (e.g. orlistat), as an adjunctive to lifestyle modification and combined with diet and physical activity, when BMI is ≥27.5 kg/m^2 • Smoking cessation
Non-Claimable • Supplements such as Vitamin B/B12 (except for cases with documented deficiency) • Dietary supplements (e.g. Glucerna, Ensure) • Purchase of medical equipment such as blood pressure monitoring equipment, walking aids, wheelchairs and other home nursing equipment • Nootropics (e.g. piracetam)

12. Dementia

(While clinical indicator submission is not currently required, clinicians are required to document these assessments in case notes)

Dementia is a neurodegenerative disease that is characterised by progressive impairment of cognitive function. As the disease increases in severity, patients may experience some or all of the following: memory loss, language impairment, disorientation, changes in personality, difficulty with activities of daily living, self-neglect, neuropsychiatric symptoms and out of character behaviour.

Part I: Recommended Care Components for Dementia

Recommended Care Components	Minimum Frequency*	Remarks
Assessment of Memory	Annually	For patients on cognitive enhancers, objective documentation of memory assessment with a bedside cognitive screening instrument (e.g. Mini-Mental State Examination) must be performed.
Assessment of Mood and Behaviour	Annually	Enquiring about mood and behaviour and initiating appropriate non-pharmacological and/or pharmacological treatment where appropriate
Assessment of Social Difficulties and Caregiver stress (if any)	Annually	Assessment and referral to care coordinator, medical social worker or appropriate community services may be required
Functional Needs Assessment	Annually	To assess home safety, driving safety, falls, functional decline and swallowing difficulties
Influenza Vaccination#	Annually or per season	As recommended under the National Adult Immunisation Schedule (NAIS)

*More frequently if clinically indicated

#This is also a non-reportable clinical indicator

Part II: Consideration for Collaborative Care

Specialist Referral Recommended
• Young onset Dementia (YOD) i.e. onset before the age of 65 • Patients who decline rapidly (based on feedback from caregiver and clinical impression) • Patients in whom diagnosis of Dementia is uncertain • Uncontrolled behavioural and neuropsychiatric symptoms despite trial of pharmacological/non-pharmacological interventions
Consider Collaborative Care or Anchoring Care with Primary Care Physician
In patients who • Have minimal behaviour problems or behaviours that are well controlled with modest doses of medications • Are stable with minimal coping issues in both patient and caregiver • Have mild/moderate dementia and are keen to drive will require a driving assessment by the Occupational Therapist

Part III: Claimable/Non-Claimable Items

Specific Examples of Claimable/Non-Claimable:
Claimable • Drugs related to management of dementia such as cognitive enhancers or for the management of the behavioural and psychological symptoms of dementia (e.g. acetylcholinesterase inhibitors, antipsychotics)
Non-Claimable • Off-label/non-HSA registered/non-evidence-based medications or therapies (e.g. NSAIDs, COX2 inhibitors and Prednisolone) for prevention of cognitive decline • Dietary supplements (e.g. Vitamin E, Ginkgo) or traditional medications/therapies (e.g. aromatherapy or massage therapy)

13. Osteoarthritis

(While clinical indicator submission is not currently required, clinicians are required to document these assessments in case notes)

Osteoarthritis is characterised by focal areas of loss of articular cartilage within synovial joints, leading to pain and gradual loss of function, and typically affects older people. The diagnosis can be made clinically based on history and physical examination, with laboratory and radiologic investigations selectively undertaken to exclude inflammatory arthritis, secondary osteoarthritis and non-articular causes of joint pain.

Part I: Recommended Care Components for Osteoarthritis

Recommended Care Components	Minimum Frequency*	Remarks
Joint Pain and Function	Annually	
Prescription and Review of Exercise Plan	Annually	In the form of a directed or supervised muscle strengthening or aerobic exercise programme Can be undertaken by physiotherapist
Weight and BMI Assessment#	Annually	Keep <23kg/m^2 (For Non-Asian population, keep BMI <25 kg/m^2) Obese patients with BMI ≥30 kg/m^2 should be referred to a medically-supervised weight reduction programme
Activities of Daily Living (ADL) Assessment#	Annually	Referral to physiotherapy/occupational therapy assessment for assisted devices made, should ADL be impaired

*More frequently if clinically indicated

#This is also a non-reportable clinical indicator

Part II: Consideration for Collaborative Care

Specialist Referral Recommended
Lack of Response to Conservative Treatment • Unsatisfactory improvement of pain, stability or function despite adequate conservative (non-pharmacological and pharmacological) treatment
Consider Collaborative Care or Anchoring Care with Primary Care Physician
In patients who • Require long-term follow up of mild to moderate disease • Pain is adequately controlled with analgesics and physiotherapy • Have severe disease with multiple co-morbidities, not a suitable candidate for surgical management

Part III: Claimable/Non-Claimable Items

Specific Examples of Claimable/Non-Claimable:
Claimable • Intra-articular steroid injections • Investigations related to the management (e.g. X-ray, MRI) and complications (e.g. diagnostic knee aspiration after intra-articular steroid injections) of Osteoarthritis • Drug therapy for weight management (e.g. orlistat), as an adjunctive to lifestyle modification and combined with diet and physical activity, when BMI is ≥27.5 kg/m^2
Non-Claimable • Off-label/non-HSA registered medications, dietary supplements or alternative therapies (e.g. glucosamine/chondroitin, calcium, and acupuncture and chiropractic therapy) • Intra-articular viscosupplementation, oral steroids and therapeutic knee aspirations, due to weak evidence

14. Parkinson's Disease

(While clinical indicator submission is not currently required, clinicians are required to document these assessments in case notes)

Parkinson's disease is an age-related chronic progressive neurodegenerative disorder. In its early stages, Parkinson's disease usually presents with asymmetric tremor, bradykinesia and rigidity. In later stages, non-motor features, such as autonomic dysfunction, falls, sleep disturbances, and cognitive abnormalities, appear. While the disease may occur in a younger population, the average age of onset is in the early to mid-60s.

For the purpose of CDMP/CHAS, this is defined to include Parkinson's disease and Parkinsonism of any aetiology, including Drug-induced Parkinsonism).

Part I: Recommended Care Components for Parkinson's Disease

Recommended Care Components	Minimum Frequency*	Remarks
Review of Diagnosis	Annually	The diagnosis would be reviewed regularly and reassessed if there are atypical features (e.g., falls at presentation and early in the disease course, poor response to levodopa, symmetry at onset, rapid progression to Hoehn & Yahr stage 3 in 3 years, lack of tremor or dysautonomia)
Review of Treatment	Annually	Review and discussion regarding medical and surgical treatment options, as well as need for rehabilitative therapies (physiotherapy, occupational therapy and speech therapy)
Review of Complications	Annually	Assessment for cognitive impairment, psychiatric disorders (e.g. depression, psychosis), autonomic dysfunction (e.g. constipation, incontinence, orthostatic hypotension), falls, sleep disorders, and medication-related side effects
Influenza Vaccination[#]	Annually or per season	As recommended under the National Adult Immunisation Schedule (NAIS)

*More frequently if clinically indicated

[#]This is also a non-reportable clinical indicator

Part II: Consideration for Collaborative Care

Specialist Referral Recommended
Complicated or Atypical Parkinsonism • Young-onset (≤ 55 years old) Parkinson's disease • Atypical Parkinsonism • Parkinson's disease complicated by dyskinesia, dystonia, myoclonus or gaze palsies
Consider Specialist Input
Complicated or Atypical Parkinsonism • Patients who do not respond to levodopa or dopamine agonists • Patients with cognitive impairment or neuropsychiatric dysfunction • Family history of Parkinson's disease
Consider Collaborative Care or Anchoring Care with Primary Care Physician
In patients who: • Require long-term follow up and medication

Part III: Claimable/Non-Claimable Items

Specific Examples of Claimable/Non-Claimable:
Claimable • Drugs related to management of Parkinson's Disease (e.g. levodopa) • Medications for management of complications or side effects of Parkinson's Disease medications (e.g. postural hypotension, laxatives for constipation)
Non-Claimable • Dietary supplements or traditional medications/therapies (e.g. CoEnzyme Q10)

15. Benign Prostatic Hyperplasia (BPH)

(While clinical indicator submission is not currently required, clinicians are required to document these assessments in case notes)

Benign Prostatic Hyperplasia (BPH) is among the commonest urological problems in the elderly. Patients present with acute retention of urine, or lower urinary tract symptoms, such as hesitancy, poor stream, intermittency, and feeling of incomplete voiding. Irritative symptoms are nocturia, frequency and urgency.

Important differential diagnoses are carcinoma of the prostate and bladder, occult neuropathic bladders due to ageing, diabetes mellitus or Parkinson's disease.

Part I: Recommended Care Components for BPH

Recommended Care Components	Minimum Frequency*	Remarks
Review of Lower Urinary Tract Symptoms	Annually	Recommended tool for assessment of LUTS is the - **International Prostate Symptom /Quality of Life Score**
Clinical Examination – Abdominal and Digital Rectal Exam	Initial assessment	Abdominal examination includes assessment for a palpable bladder. Rectal examination to assess size, consistency and regularity of prostate
Co-Morbidity Assessment (includes medication review)	Initial assessment	
Urine Labstick or Microscopy#	Initial assessment	Screen for haematuria, pyuria and glycosuria

*More frequently if clinically indicated

#This is also a non-reportable clinical indicator

Part II: Consideration for Collaborative Care

Specialist Referral Recommended
• Hard and/or irregular prostate
Consider Specialist Input
• Retention of urine, palpable bladder and/or high residual urine • Urinary incontinence and/or other persistent bothersome symptoms • Haematuria • Proven urinary tract infection • Bladder stones
Consider Collaborative Care or Anchoring Care with Primary Care Physician
In patients whose • Symptoms well controlled, require long term follow up and assessment

Part III: Claimable/Non-Claimable Items

Specific Examples of Claimable/Non-Claimable:
Claimable • Investigations related to the management of Benign Prostatic Hyperplasia and complications (e.g. PSA tests)
Non-Claimable • Phosphodiesterase-5 inhibitors • Testosterone tests • Dietary supplements or traditional medications/therapies (e.g. Saw palmetto extract)

16. Epilepsy

(While clinical indicator submission is not currently required, clinicians are required to document these assessments in case notes)

Diagnosis of Epilepsy

Epilepsy is a chronic disorder of the brain characterised by recurrent seizures. Seizures are episodes of involuntary shaking which may involve a part of the body (partial) or the entire body (generalised), sometimes accompanied by loss of consciousness and control of bowel or bladder function, and result from excessive electrical discharges in a group of brain cells and may occur in different parts of the brain.

The diagnosis of epilepsy in adults should be established by a neurologist who will have better access to the investigative tools necessary to confirm the diagnosis including classifying the epilepsy syndrome.

The diagnosis of epilepsy in children and adolescents should be established by a paediatric neurologist.

Part I: Recommended Care Components for Epilepsy

Recommended Care Components	Minimum Frequency*	Remarks
Seizure Frequency	Annually	
Seizure Type	Annually	
Seizure Free Duration	Annually	
Influenza Vaccination#	Annually or per season	As recommended under the National Adult Immunisation Schedule (NAIS) and National Childhood Immunisation Schedule (NCIS)

*More frequently if clinically indicated

#This is also a non-reportable clinical indicator

Part II: Consideration for Collaborative Care

Consider Specialist Input
• Inadequate seizure control (e.g. in general less than 1 year between seizures while on anti-epileptic drug (AED)) • Potential withdrawal of AEDs in patients with more than one AED
Consider Collaborative Care or Anchoring Care with Primary Care Physician
• Able to achieve good seizure control (i.e. seizure-free for at least 1 year) • Titration and review of AEDs by the family physician according to a weaning regimen prescribed by the specialist for patients who have been seizure-free for at least 2 years

Part III: Claimable/Non-Claimable Items

Specific Examples of Claimable/Non-Claimable:
Claimable Claimable • Investigations (except genetic testing) to evaluate seizure aetiology, e.g. EEG and MRI brain • Investigations to monitor epilepsy and related disease complications, e.g. full blood count, renal panel, liver function test, vitamin D and calcium levels • Ketogenic diet initiated by a specialist in neurology or paediatrics for children who have drug resistant epilepsy (i.e. child has failed to become seizure free/stay seizure free with adequate trials of two AEDs) and where medically necessary as treatment for those who are on enteral feeding or predominately on milk feeds • Investigations to monitor/guide treatments, e.g. AED blood levels for detection of non-adherence, suspected toxicity, adjustment of phenytoin dose, HLA-B 1502 genotyping for susceptibility to carbamazepine allergy • Investigations to monitor complications of treatments (including ketogenic diet) • Supplements in specific situations where there is documented deficiency or where medically indicated (e.g. supra-physiological doses of pyridoxine, pyridoxal phosphate and folinic acid for vitamin-responsive seizures, and carnitine for those on sodium valproate and at risk of secondary carnitine deficiency)
Non-Claimable • Genetic testing for epilepsy • Nootropics (e.g. piracetam)

Table 3.6: List of Claimable Investigations for Patients on Ketogenic Diet

At baseline and on routine follow-up if indicated:	
Full blood count	Urine organic acids
Renal panel	Urine ketones
Liver panel	Magnesium
Lipid panel	Serum amino acids
ECG	Lactate
AED level	Ammonia
Betahydroxybutyrate	EEG
Random urine calcium & creatinine	Renal ultrasound

17. Osteoporosis

(While clinical indicator submission is not currently required, clinicians are required to document these assessments in case notes)

Diagnosis of Osteoporosis

Osteoporosis is a 'progressive systemic skeletal disease characterised by low bone mass and microarchitectural deterioration of bone tissue, with a consequent increase in bone fragility and susceptibility to fracture'.[20]

Common sites of fracture are the vertebral bodies of the spine, the hip, the forearm and the proximal humerus.

Osteoporosis should be diagnosed based on Dual Energy X-Ray Absorptiometry (DXA) of hip and spine, and/or previous fragility fracture. Currently, the use of methods other than DXA to diagnose osteoporosis is not recommended.

Individuals found to have osteoporosis should have relevant clinical, laboratory and radiological assessments to exclude diseases that mimic, cause or aggravate osteoporosis, so that appropriate management may be implemented.

Table 3.7: WHO definitions based on BMD

BMD T-score (S.D.)	Definition
≥ -1	Normal
< -1 to > -2.5	Low bone mass (osteopenia)
≤ -2.5	Osteoporosis
≤ -2.5 and a fragility fracture	Severe or established osteoporosis

Part I: Recommended Care Components for Osteoporosis

Recommended Care Components	Minimum Frequency*	Remarks
DXA scan[#]	At least once every 1-3 years[21]	For treatment monitoring, consider DXA at baseline, after one to two years of treatment (to establish clinical effectiveness), and every two to three years thereafter. Clinicians may review the frequency of DXA assessment accordingly based on patients' risk factors and response to treatment.
WHO Fracture Risk Assessment Tool (FRAX Score)[#]	Annually	http://www.shef.ac.uk/FRAX/tool.jsp to access FRAX score calculator

*More frequently if clinically indicated

[#]This is also a non-reportable clinical indicator

[20] Consensus development conference: prophylaxis and treatment of osteoporosis. Am J Med. 1991 Jan;90(1):107-10.

[21] When BMD has normalised, frequency of DEXA scans should be based on patient's osteoporosis risk (viz low, moderate or high) as defined in Osteoporosis Self-Assessment Tool for Asians (OSTA). For detailed practice recommendations, clinicians are advised to refer to updated clinical guidance (e.g. ACGs).

Part II: Consideration for Collaborative Care

Consider Specialist Input
• Male or pre-menopausal female patients • Patients with/suspected of secondary osteoporosis (e.g. disproportionately low Z-scores, long-term steroid use, co-existing endocrine diseases such as hyperparathyroidism, hypogonadism, hypercortisolism and hyperthyroidism) • Patients with structural or congenital bone condition • Patients with multiple fragility fractures AND very low DXA BMD (T-score <-3.0) • Patients who adhere to treatment and experience fragility fractures or continued bone loss (>4-5% deterioration in DXA BMD) after at least a year of treatment • Creatinine clearance estimated by Cockcroft-Gault equation <30ml/minute
Consider Collaborative Care or Anchoring Care with Primary Care Physician
• Patients with primary osteoporosis and on bone protective agent • Patients with secondary osteoporosis who are stable and compliant with medications

Part III: Claimable/Non-Claimable Items

Specific Examples of Claimable/Non-Claimable:

Claimable
• Oral bisphosphonates and evidence supported therapies, e.g.
  ○ IV Zoledronic acid, raloxifene, s/c teriparatide, and denosumab where medically indicated, such as for patients at high risk of fractures and unable to comply with oral bisphosphonates
  ○ Vitamin D analogues (e.g. alfacalcidol and calcitriol) for glucocorticoid-induced osteoporosis
• Investigations related to the management of osteoporosis (DXA scans and blood tests for levels of calcium, vitamin D, thyroid stimulating hormone, parathyroid hormone)
• Calcium and vitamin D for patients with established deficiencies or those who are unlikely to meet the respective daily requirements
• Treatment of osteopenia for individuals with no fractures (i.e. no history of any clinical fracture or asymptomatic vertebral fracture), but with high fracture risk (calculated using the Fracture Risk Assessment Tool (FRAX) and/or assessment of other relevant risk factors), after weighing risk and benefits with patients.

Non-Claimable • Testosterone and hormone replacement therapy (HRT)

References

1. ACE Clinical Guidance on Osteoporosis - Identification and management in primary care (November 2018)

18. Psoriasis

(While clinical indicator submission is not currently required, clinicians are required to document these assessments in case notes)

Diagnosis of Psoriasis

Psoriasis is a chronic inflammatory skin disease that typically follows a relapsing and remitting course. Plaque psoriasis presents with well-delineated erythematous, scaly plaques, with or without pustules.

Typical sites of involvement are the scalp, behind the ears or in the concha, on extensor surfaces (i.e. elbows and knees), and the sacral area and natal cleft. It is associated with characteristic nail changes (more than 5 pits on any nail, onycholysis or subungual hyperkeratosis) and joint pains, especially fingers showing dactylitis or sausage shaped joints.

Psoriatic arthritis is an inflammatory polyarthritis that may develop in up to 30% of people with psoriasis. There is no definitive test to diagnose psoriatic arthritis. Some associated conditions are achilles tendinitis and plantar fasciitis.

Part I: Recommended Care Components for Psoriasis

Recommended Care Components	Minimum Frequency*	Remarks
Assessment of psoriatic arthritis	Annually	Monitor for joint pain. If present, to proceed with recommended tool for assessment – Psoriasis Epidemiology Screening Tool (PEST) and refer to specialist
Body Surface Area (BSA) affected by psoriasis#	Annually	Use patient's palm as an estimate of 1% BSA and consider referral to specialist if BSA > 10%

*More frequently if clinically indicated

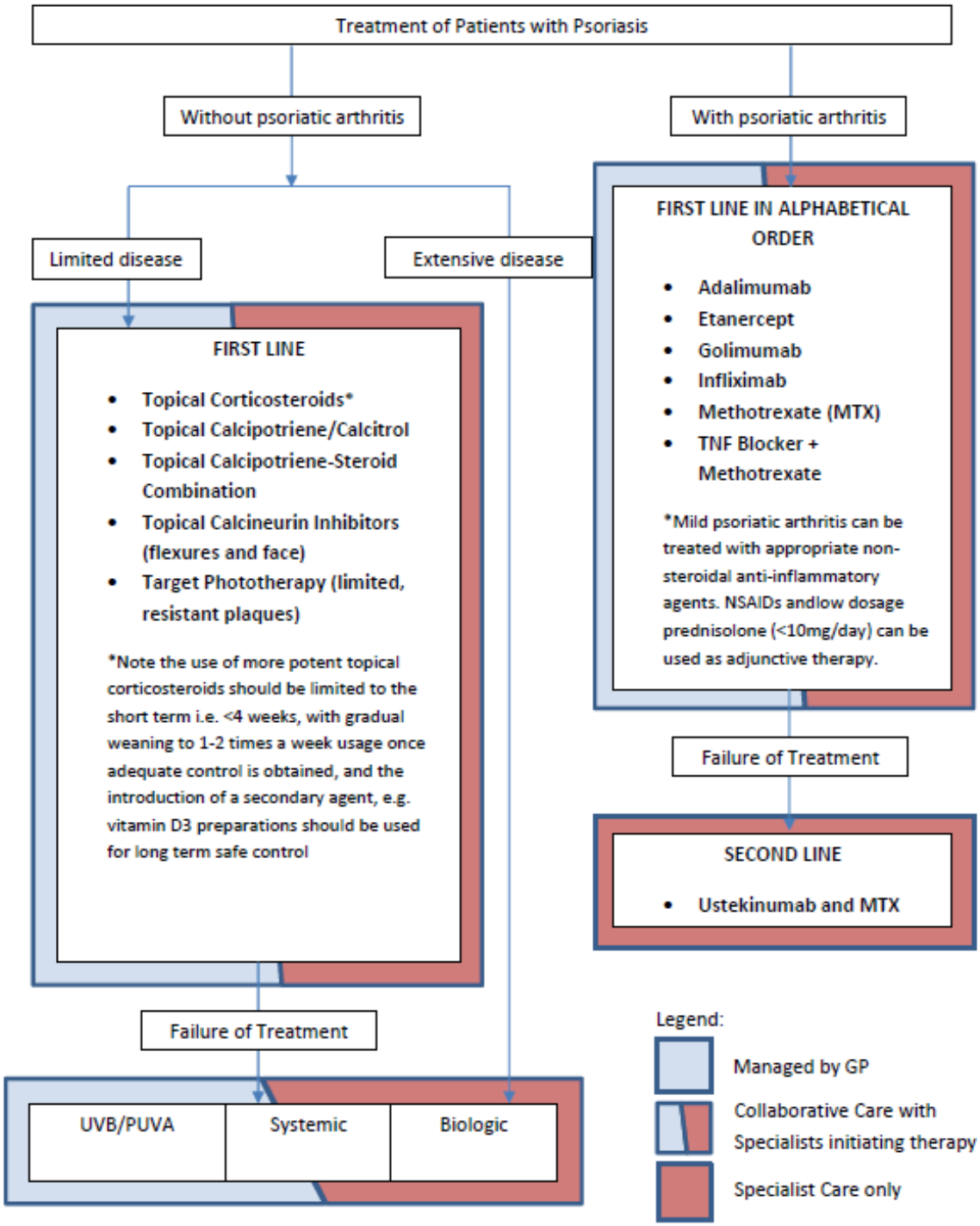
#This is also a non-reportable clinical indicator

Part II: Consideration for Collaborative Care

Specialist Referral Recommended
Psoriatic arthritis Patients with rash that cannot be controlled with topical therapy Patients with such severity or type of psoriasis potentially requiring systemic agent or phototherapy
Consider Specialist Input
Patient with "unstable" rash i.e. rapid and/or considerable change in psoriasis (e.g. rapid BSA extension, frequent flares, plaque psoriasis fluctuating between pustulation and remission) Patients with generalised pustular psoriasis or erythroderma
Consider Collaborative Care or Anchoring Care with Primary Care Physician
In patients who: Have stable/low disease activity Are on long term methotrexate# (with specialist review every six months to one year)

[#] In the management of these patients, primary care physicians should be guided by detailed management plans set out by the specialist (who should oversee the monitoring of the lifetime dose for patients, as well as perform drug titration if necessary).

Figure 1: Decision tree for collaborative care



Based on American Academy of Dermatology Guidelines for Psoriasis 2011

Part III: Claimable/Non-Claimable Items

Specific Examples of Claimable/Non-Claimable:
Claimables Phototherapy Systemic non-biologic therapy, e.g. Methotrexate, Cyclosporine, Acitretin Biologics treatment Baseline investigations before starting systemic and biologics therapy (e.g. full blood count, renal panel, liver panel, chest radiograph, hepatitis B and C screening) Routine investigations for patients on oral systemic and biologics therapy Investigations to monitor joint involvement Topical applications which are (i) Prescription Only Medicines as classified by HSA; (ii) clearly indicated in the treatment notes; and (iii) clinically indicated based on the latest CPGs, ACGs issued by MOH, and/or best available evidence-based practice: ○ Standard moisturisers (e.g. aqueous cream, urea cream and white soft paraffin) and ○ Corticosteroid creams/ointment (e.g. hydrocortisone, betamethasone valerate, betamethasone dipropionate) ○ Coal tar, salicylic acid, olive oil ○ Vitamin D analogues
Non-Claimable Over-the-counter products (e.g. moisturisers, emollients, bath solutions) purchased without (i) a prescription as classified by HSA, (ii) clear indications in treatment notes, and/or (iii) clinical indications based on the latest CPGs, ACGs issued by MOH, and/or best available evidence-based practice

Table 3.8: List of Claimable Investigations for Patients who are Presently on or Initiating Oral Systemic and Biologic Therapy

At baseline:	On routine follow-up:
Full blood count Liver panel Renal panel Chest x-ray Hep B and C screening TB-spot (for pre-biologic) Liver fibroscan/Magnetic resonance elastography if indicated <u>Before starting Acitretin</u> Fasting lipids <u>Before starting Cyclosporine</u> Fasting lipids Serum magnesium	<u>For patients on MTX</u>: Full blood count Liver panel Creatinine (periodically) Liver fibroscan/Magnetic resonance elastography if indicated <u>For patients on Cyclosporin</u>: Renal panel Liver Panel <u>For patients on Acitretin</u>: Liver Panel Fasting lipids

19. Rheumatoid Arthritis (RA)

(While clinical indicator submission is not currently required, clinicians are required to document these assessments in case notes)

Diagnosis of Rheumatoid Arthritis (RA)

Rheumatoid arthritis is a chronic inflammatory autoimmune disease of unknown aetiology. It is characterised by inflammatory pain and stiffness of synovial joints, with progressive joint destruction if untreated. It is associated with extra-articular manifestations (such as sicca symptoms, interstitial lung disease, and vasculitis), and systemic comorbidities (such as cardiovascular disease and osteoporosis).

A rheumatoid arthritis flare is characterised by worsening disease activity, commonly accompanied by raised ESR or CRP that requires a change in therapy. It must be distinguished from non-inflammatory causes of worsening joint pain, swelling, and septic arthritis.

Patients who meet one of the following classification criteria will be eligible for claims under Rheumatoid Arthritis.

1) Patients who meet the 1987 ARA criteria for rheumatoid arthritis or the 2010 ACR/EULAR Diagnostic criteria for rheumatoid arthritis
2) Established rheumatoid arthritis with characteristic features such as joint swelling and deformity
3) Early rheumatoid arthritis previously diagnosed and followed up by a rheumatologist
4) Juvenile rheumatoid arthritis previously diagnosed and followed up by a rheumatologist

Spondyloarthritis/Ankylosing Spondylitis, Adult Onset Still's Disease are not claimable under the CDMP Rheumatoid Arthritis.

Part I: Recommended Care Components for RA

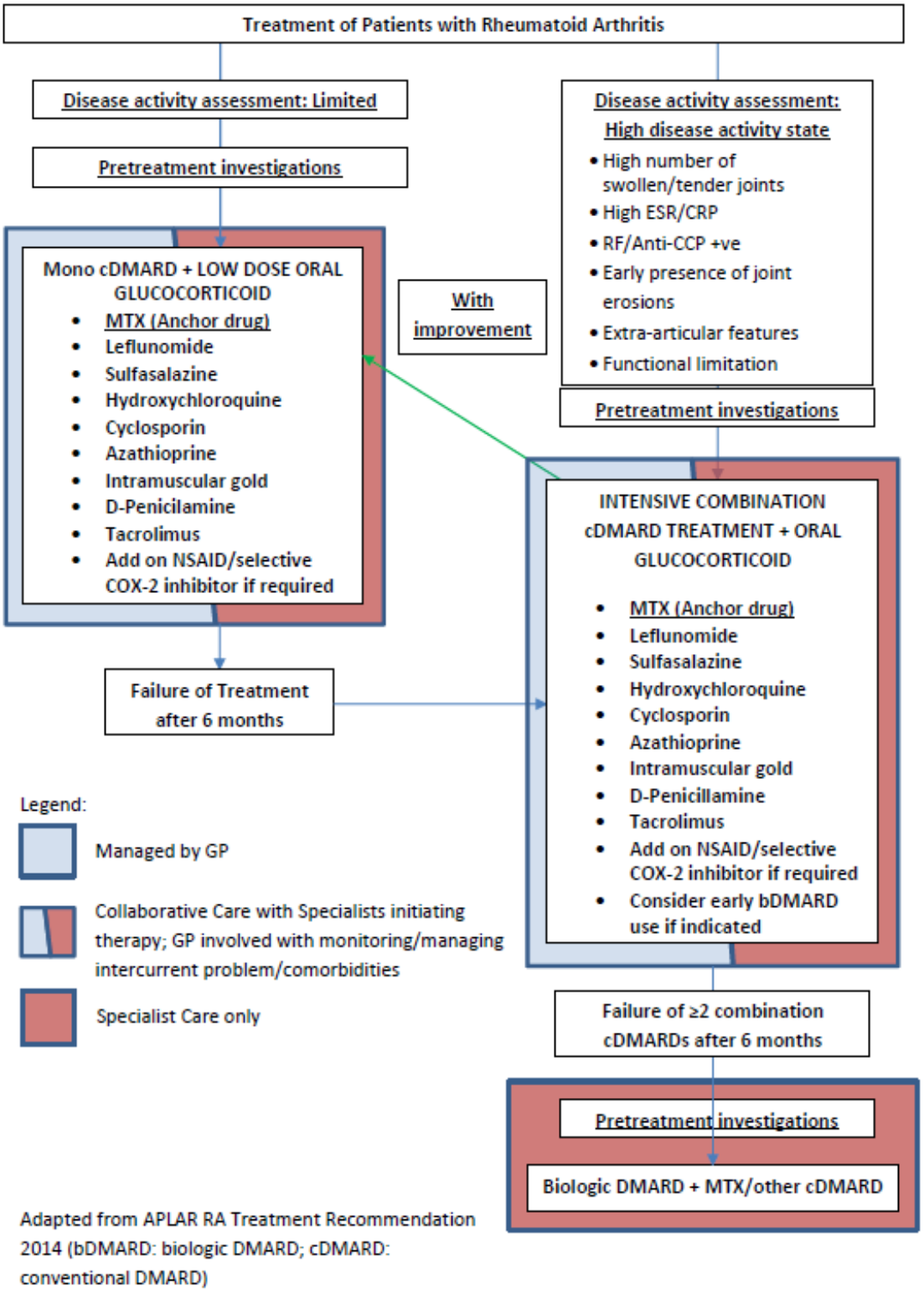
Recommended Care Components	Minimum Frequency*	Remarks
Assessment of RA Disease Activity	Annually	Number of tender/swollen joints, CRP or ESR; Measures of disease activity must be obtained and documented regularly, as frequently as monthly for patients with high/moderate disease activity, or less frequently (at least at 6-month intervals) for patients in sustained low disease activity or remission.

*More frequently if clinically indicated

Part II: Consideration for Collaborative Care

Specialist Referral Recommended
Patients requiring new initiation of DMARD therapy Patients with RA flares requiring either high dose (e.g. prednisolone >10mg/day) or long term (≥6 months) glucocorticoid therapy (which should be accompanied by appropriate dose adjustment of DMARDs) Patients with extra-articular manifestations of RA Patients on biologic DMARD therapy Paediatric patients with six weeks or more of persistent joint swelling, and joint pain
Consider Specialist Input
Patients who develop active disease (1 or more swollen and/or tender joints, high ESR/CRP) while on collaborative care
Consider Collaborative Care or Anchoring Care with Primary Care Physician
Patients deemed to be in DMARD-free remission Patients deemed to have quiescent/low disease activity (no swollen and/or tender joints, ESR/CRP within normal range) for at least 3-6 months under a specialist's care Patients on (non-biologic) DMARD therapy at maintenance dosage

Figure 2: Decision tree for collaborative care



Adapted from APLAR RA Treatment Recommendation 2014 (bDMARD: biologic DMARD; cDMARD: conventional DMARD)

Part III: Claimable/Non-Claimable Items

Specific Examples of Claimable/Non-Claimable:
Claimable
Investigations for the monitoring of the disease and related complications (e.g. full blood count, renal panel, liver function test, CRP, ESR, X-rays)
Non-biologic DMARD therapy
Biologic DMARD therapy where medically indicated (e.g. where disease is inadequately controlled with non-biologic DMARD therapy)
Investigations performed **prior** to the initiation of DMARD (biologic & non-biologic) therapy, e.g. hepatitis B and C serology, T-spot TB
Baseline eye screening, and annually after five years of drug institution, for patients on hydroxychloroquine
Anti-inflammatory agents (e.g. NSAIDS, selective COX-2 inhibitors and glucocorticoids) as adjunct treatments
Non-Claimable
Serum Rheumatoid Factor (RF), anti-CCP Antibody testing and other investigations done prior to and not leading to diagnosis of disease

20. Ischaemic Heart Disease (IHD)[22]

(While clinical indicator submission is not currently required, clinicians are required to document these assessments in case notes)

Ischaemic heart disease (IHD)/coronary artery disease (CAD) includes stable and unstable angina pectoris, myocardial infarction (MI), current complications following MI, and plaques visualised in the coronary arteries without ischaemia.[23]

IHD results when coronary artery plaque develops and reduces the oxygen supply to the myocardium. Early intervention is required to prevent disease progression and recurrent cardiovascular events. This includes lifestyle modification and medical therapy as indicated.

Evidence to support a diagnosis of IHD (for purposes of claims under CDMP) could include:

a) History of symptoms, prior diagnosis of IHD, current symptoms and/or investigation findings (e.g. electrocardiogram (ECG), stress test, angiography) consistent with cardiac ischaemia
b) Post-acute myocardial infarction (AMI)
c) Prior percutaneous coronary intervention (PCI) or coronary artery bypass graft (CABG)

[22] Includes coronary artery disease for purposes of claims under CDMP.

[23] Non-ischaemic heart diseases, such as non-ischaemic cardiomyopathy, congenital heart diseases, arrhythmias and valvular defects, are not covered.

Part I: Recommended Care Components for IHD

Recommended Care Components	Minimum Frequency*	Remarks
Blood Pressure Measurement#	Twice a year	
Weight and BMI Assessment#	Twice a year	Keep <23kg/m^2 (For Non-Asian population, keep BMI <25 kg/m^2)
Lipid Profile#	Annually	Target LDL <2.1mmol/L as patients with IHD/CAD are in the "very high risk" group
Smoking Assessment#	Annually for smokers; Once-off for non-smokers, unless there is a change in smoking habit	Assessment on smoking habits (estimated sticks/day; zero for non- or ex-smoker) and provision of smoking cessation counselling
Diabetes Screening#	Annually or once every three years, as clinically indicated	Screening should be carried out every three years for those with normal glucose tolerance, and annually for those with impaired fasting glycaemia (IFG) or impaired glucose tolerance (IGT). Refer to Diabetes Mellitus chapter for diagnostic criteria
Kidney Function Monitoring#	Annually	Especially for patients on ACE inhibitors. Serum Cr and eGFR†, and Urine Albumin-Creatinine (uACR) may be considered.

Part I: Recommended Care Components for IHD (continued)

Recommended Care Components	Minimum Frequency*	Remarks
Influenza Vaccination#	Annually or per season	As recommended under the National Adult Immunisation Schedule (NAIS)
Pneumococcal Vaccination (PPSV23 only) #	1 or 2 doses depending on age and other medical conditions	As recommended under the National Adult Immunisation Schedule (NAIS)

*More frequently if clinically indicated

#This is also a non-reportable clinical indicator

Part II: Consideration for Collaborative Care

Specialist Referral Recommended
• Emergency or urgent treatment indicated, e.g. unstable angina, myocardial infarction, and acute decompensated heart failure • Suboptimal control of IHD risk factors despite lifestyle modification and optimised medical therapy, e.g. lipids and blood pressure
Consider Collaborative Care or Anchoring Care with Primary Care Physician
• Stable IHD, e.g. stable angina, history of MI but otherwise stable condition

Part III: Claimable/Non-claimable Items

Specific Examples of Claimable/Non-claimable:
Claimable • Investigations for evaluation of IHD severity, monitoring of progression, detection of complications and guidance on further treatment, e.g. ECG, stress test, transthoracic echocardiography, cardiac CT angiogram, and cardiovascular risk factor monitoring such as lipid profile • Smoking cessation • Cardiac rehabilitation
Non-Claimable • Monitoring devices for cardiovascular risk factors, e.g. blood pressure monitoring equipment, glucometer and strips

21. Allergic Rhinitis

(While clinical indicator submission is not currently required, clinicians are required to document these assessments in case notes)

Diagnosing Allergic Rhinitis

Allergic rhinitis (AR) is a symptomatic disorder of the nose induced by exposure to allergens. It involves IgE-mediated inflammation of the mucous membranes lining the nose and results in the cardinal symptoms of nasal itching, sneezing, anterior or posterior rhinorrhoea, and nasal obstruction. The diagnosis is made clinically when ≥2 symptoms are present on ≥2 consecutive days for >1 hour on most days. AR can be subdivided into intermittent or persistent AR and its severity classified as 'mild' or 'moderate/severe' [24] . Allergen triggers include house dust mite, pets, rodents, cockroaches, indoor moulds, and tobacco smoke, with house dust mite being the most common trigger locally.

It is important to treat AR due to its impact on asthma. Other associated atopic conditions which often present together include allergic conjunctivitis and eczema, although these conditions are managed differently. Another related condition is chronic rhinosinusitis, which has distinct diagnostic criteria and is managed differently from AR. For the purposes of CDMP/CHAS, these conditions are not currently covered under the CDMP: allergic conjunctivitis, eczema, acute or chronic rhinosinusitis.

Part I: Recommended Care Components for Allergic Rhinitis

Essential Care Component	Minimum Frequency*	Remarks
Assessment and Education on Allergen Avoidance	At diagnosis; thereafter, as clinically indicated	Patient education regarding disease course and measures to control exposure to allergens.
Smoking Assessment[#]	Annually for smokers; once-off for non-smokers, unless there is a change in smoking habit	Assessment on smoking habits (estimated sticks/day; zero for non- or ex-smoker) and smoking cessation counselling.

*More frequently if clinically indicated

[#] This is also a non-reportable clinical indicator

[24] According to Allergic Rhinitis and its Impact on Asthma (ARIA) 2008, AR can be subdivided into intermittent or persistent AR and its severity classified as 'mild' or 'moderate/severe'.

1. Classification of allergic rhinitis
   a. Intermittent: symptoms present <4 days/week or for <4 consecutive weeks
   b. Persistent: symptoms present >4 days/week or for >4 consecutive weeks
2. Severity of AR
   a. Mild: none of the following (sleep disturbance, impairment of daily activities, leisure and/or sport, impairment of school or work) or symptoms present but not troublesome
   b. Moderate/severe: ≥1 of the following are present (sleep disturbance, impairment of daily activities, leisure and/or sport, impairment of school or work); symptoms are troublesome

Part II: Consideration for Collaborative Care

Specialist Referral Recommended
• Persistent symptoms despite compliance to treatment • Red flag symptoms, such as unilateral symptoms of nasal obstruction with epistaxis • Associated atopy/asthma requiring specialist evaluation (for example, evaluation of allergies by allergy specialist with consideration for specific immunotherapy) • Children under 2 years of age (allergic rhinitis is uncommon in this age group)
Consider Collaborative Care or Anchoring Care with Primary Care Physician
In patients who: • Have well controlled symptoms who require long term follow-up and assessment

Part III: Claimable/Non-Claimable Items

Specific Examples of Claimable/Non-Claimable:
Claimable • Investigations for management of the disease or to rule out related conditions (e.g. allergen-specific IgE tests, CT/MRI scans of paranasal sinuses) • Treatment options including intranasal steroid sprays and antihistamines • Smoking cessation
Non-claimable • Purchase of equipment such as High Efficiency Particulate Air (HEPA) filters or anti-dust mite covers and mattresses • Supplements such as vitamin C • Non-HSA-registered medications (e.g. Allergen-specific immunotherapy)

References

1. Allergic Rhinitis and its Impact on Asthma (ARIA) guidelines and revisions
    a. Allergic Rhinitis and its Impact on Asthma (ARIA) 2008. Allergy. 2008; 63:8-160.
    b. Allergic Rhinitis and its Impact on Asthma (ARIA) guidelines: 2010 Revision. J Allergy Clin Immunol. 2010; 126(3):466-476
    c. Allergic Rhinitis and its Impact on Asthma (ARIA) guidelines – 2016 revision. J Allergy Clin Immunol. 2017; 140(4):950-958.
2. National Healthcare Group Polyclinics Clinical Practice Guidelines: Allergic Rhinitis (August 2020)
3. MOH Clinical Practice Guidelines Rhinosinusitis and Allergic Rhinitis (Feb 2010) – *withdrawn**

**MOH clinical practice guidelines are considered withdrawn five years after publication unless otherwise specified in individual guidelines. While some components of previously issued guidelines may still be relevant, users should keep in mind that evidence-based guidelines are only as current as the evidence that supports them and new evidence can supersede recommendations made in the guidelines.*

22. Gout

(While clinical indicator submission is not currently required, clinicians are required to document these assessments in case notes)

Gout is a form of inflammatory arthritis caused by deposition of monosodium urate (MSU) crystals in and around joints due to underlying chronic serum urate elevation. It typically presents episodically as painful acute flares that may increase in frequency or severity without appropriate management. In the long-term, complications of gout include joint damage, urate nephrolithiasis and chronic nephropathy. Gout is associated with multiple comorbidities including renal impairment, obesity, diabetes mellitus, hypertension, and hyperlipidaemia.

Gout can be both primary or secondary gout, with secondary gout caused by aetiologies that are potentially reversible once the offending substance is removed, such as diuretic- or lead-induced gout.

Diagnosing Gout

The diagnosis of gout is a clinical one, and patients typically present with acute onset of severe pain and asymmetrical swelling affecting joints, most commonly the first metatarsophalangeal joint (MTPJ) and ankle joints, and occasionally the knees and small joints of the hands (proximal interphalangeal joints or PIPJs). Physical examination usually yields erythema, warmth, swelling and tenderness of the affected joint, with joint deformities noted in patients with chronic gout. Some patients also report a strong family history of gout.

A patient can be further assessed to have one of the following:

1. 1st episode of acute gout
2. 1st episode of acute onset of periarticular gout (present at bursae or tendon sheaths)
3. Recurrent gout (≥3-4 episodes per year)
4. Chronic tophaceous gout
5. Inter-critical gout (time between gout attacks)

Part I: Recommended Care Components for Gout

Recommended Care Component	Minimum Frequency*	Remarks
Serum Uric Acid	At baseline and thereafter as clinically indicated	Frequency of monitoring to be tailored based on clinical indication. Target serum uric acid is below <360 µmol/L for non-tophaceous gout, and below <300 µmol/L for tophaceous gout.
Renal Function Monitoring	At baseline	Baseline creatinine and eGFR to exclude renal disease. Consider yearly monitoring if patient on periodic NSAID use. Frequency of monitoring to be tailored based on clinical indication.
Alanine Aminotransferase (ALT), Aspartate Transaminase (AST)	At baseline	Baseline to exclude hepatic impairment and to detect fatty liver (feature of metabolic syndrome). If starting Allopurinol, consider repeating 2-8 weeks after initiation and as clinically indicated thereafter to monitor for deranged liver function in severe cutaneous adverse reaction (SCAR).
Full Blood Count (FBC)	At baseline	Consider FBC to exclude infection or haematological disorders. If starting Allopurinol, consider repeating 2-8 weeks after initiation and as clinically indicated thereafter to monitor for leukocytosis and eosinophilia in SCAR.
Erythrocyte Sedimentation Rate (ESR)	At baseline (where applicable)	Consider ESR to exclude other suspected inflammatory arthritis.
Creatine Kinase level	At baseline	Consider CK before starting Colchicine to document levels and exclude muscle pathology. Consider repeating 2-8 weeks after initiation and 3-6 monthly thereafter to monitor for Colchicine myopathy.
Plasma Glucose	At baseline; consider yearly thereafter	To detect insulin resistance and diabetes mellitus (features of metabolic syndrome).
Fasting Lipids	At baseline; consider yearly thereafter	To detect dyslipidaemia (feature of metabolic syndrome). All patients should be risk stratified with targets of treatment tailored accordingly.
X-ray of Relevant Joints	If clinically indicated	Consider imaging to differentiate from other inflammatory arthritides.
Blood Pressure Measurement	Twice a year	To personalise target blood pressure based on patient's risk factors.
Weight and BMI Assessment	Twice a year	Keep BMI <23kg/m^2 (for non-Asian population, keep BMI <25 kg/m^2).
Assessment of Diet and Lifestyle	Annually	All patients should be advised on low purine diet and lifestyle modification (alcohol avoidance and smoking cessation).

*More frequently if clinically indicated

Part II: Consideration for Collaborative Care

Specialist Referral Recommended
Rheumatology referral recommended in patients with recurrent/chronic gout and any of the following: • Severe or refractory gout despite reaching target serum urate levels • Severe renal impairment • Difficulty in achieving the management goal, particularly with renal impairment • Serious adverse effects from ULT
Consider Collaborative Care or Anchoring Care with Primary Care Physician
In patients who: • Have good disease control with infrequent acute flares and good ULT tolerability

Part III: Claimable/Non-Claimable Items

Specific Examples of Claimable/Non-Claimable:
Claimable • Investigations leading to the positive diagnosis of gout, including serum uric acid tests and joint aspiration • Investigations for the management of gout, such as serum uric acid and renal panel • Medications used for the management of acute gout flares (e.g. colchicine, oral NSAIDs, oral corticosteroids) • Medications used for the long-term management of gout (e.g. ULT including Allopurinol) • Investigations and management of complications of gout including urate nephrolithiasis, if relevant • Dietetics services for low-purine diet
Non-claimable • Investigations to evaluate for hyperuricaemia when the patient is asymptomatic or does not have a clinical history suggestive of gout • ULT in patients with asymptomatic hyperuricaemia • Traditional or complementary medicine

References

4. Agency for Care Effectiveness Appropriate Care Guide on Gout: Achieving the management goal (20 December 2019)
5. 2020 American College of Rheumatology Guideline for the Management of Gout (June 2020)
6. National Healthcare Group Polyclinics Clinical Practice Guidelines: Management of Acute Gout and Chronic Gout in Primary Care (July 2020)
7. National University Polyclinics Clinical Practice Guidelines: Management of Acute Gout and Chronic Gout in Primary Care (February 2020)

23. Chronic Hepatitis B

(While clinical indicator submission is not currently required, clinicians are required to document these assessments in case notes)

Diagnosing Chronic Hepatitis B Infection

Chronic hepatitis B virus (HBV) infection is defined as having two HBsAg positive results taken at least 6 months apart. Alternatively, a negative test for IgM-anti-HBc together with a positive test for HBsAg in a single blood sample identifies chronic HBV infection.

Chronic HBV infection is usually asymptomatic, with symptoms only occurring late in the disease course. However, HBV is one of the most common and preventable causes of liver cirrhosis, hepatocellular carcinoma (HCC) and liver failure, thus regular follow-up is important for early detection of abnormalities.

Hepatitis B Screening and Vaccination

In Singapore, hepatitis B vaccination is part of the National Childhood Immunisation Schedule (NCIS) and National Adult Immunisation Schedule (NAIS). Hepatitis B screening is recommended in certain patient populations[25] and can be performed with a blood test. An antibody titre >10 IU/L is protective.

[25] As recommended by the Screening Test Review Committee (STRC), hepatitis B screening is recommended in the following individuals:

i. Asymptomatic Singapore residents with no known hepatitis B carrier status born before 1987 who did not undergo the local catch-up immunisation programmes from 2001 to 2004
ii. Pregnant women
iii. Healthcare workers
iv. Foreigners and immigrants from countries where HBV is endemic
v. At risk groups: chronic haemodialysis patients, past or present injection drug users, individuals who underwent invasive procedures in health-care facilities with inadequate infection control practices, individuals with known exposures to HBV (e.g. healthcare workers following needle stick injury involving HBV-positive blood, or recipients of blood or organs from a donor who tested HBV-positive), individuals whose past or present sex partners were/are HBV-infected or injection drug users, HIV patients

Table 1.1: Viral Protein Tests and Clinical Significance

Viral Protein Test	Clinical Significance
HBsAg *Hepatitis B surface antigen*	Detected in high levels in serum during acute infection and persists for an average of 4 weeks after exposure to the virus. Persistence beyond 6 months indicates chronic HBV infection.
Anti-HBs *Hepatitis B surface antibody*	Indicates recovery and immunity from HBV infection. Also develops in a person successfully vaccinated against HBV.
IgM anti-HBc *IgM class antibody to core antigen*	Indicates recent infection with HBV (<6 months).
HBeAg *Hepatitis B envelope antigen*	Those positive for HBeAg circulate HBV at very high titres in their blood. This indicates high infectivity. Persistence of HBeAg beyond 40 years old is associated with poorer prognosis.
Anti-HBe *Antibody to HBeAg*	Anti-HBe becomes detectable when HBeAg is lost and is associated with low infectivity.

Table 1.2: Hepatitis B Screening Results and Clinical Interpretation

Results HBsAg	Anti-HBs	Vaccination status (course of 3 doses)	Interpretation	Recommended Action
Negative (or non-reactive)	<10 IU/L	No	Not immune to HBV	Administer hepatitis B vaccination.
Negative (or non-reactive)	<10 IU/L	Completed recently within last few months	Not immune to HBV	Repeat hepatitis B course of 3 doses and recheck serology 6-8 weeks later. If no antibody response, consider referral to Infectious Diseases.
Negative (or non-reactive)	<10 IU/L	Completed many years ago	Antibody levels may have waned	Administer 1 dose and recheck Anti-HBs 6-8 weeks later. High titres >100 convey immunity for life. If no antibody response, to complete course of 3 doses and recheck.
Negative (or non-reactive)	>10 IU/L	Regardless	Immune to HBV	No vaccination required.
Positive (or reactive)	-	Regardless	HBV infection	Look for signs and symptoms of acute hepatitis. Repeat HBsAg in 6 months.

Part I: Recommended Care Components for Chronic Hepatitis B

Recommended Care Component	Minimum Frequency*	Remarks
HBeAg#	At first visit	If positive at first visit, to recheck at age 40 years, or age 35 years if high-risk factors present [26]; if still positive, to consider specialist referral. Frequency of monitoring to be tailored based on clinical indication.
Anti-HBe antibody#	At first visit	
Liver Function Test (LFT)#	At first visit, and minimally ALT once every 6 months thereafter	Frequency of monitoring and specialist referral to be tailored based on previous ALT values and trends as well as HBeAg status.
Alpha-fetoprotein (AFP)#	At first visit and once every 6 months thereafter	AFP is a tumour marker used for HCC surveillance.
Full Blood Count (FBC)	Consider at first visit and once every 6 months thereafter	To monitor for thrombocytopenia associated with liver disease.
Ultrasound Hepatobiliary System (US HBS)#	At first visit and annually thereafter	Frequency of imaging to be tailored based on HCC risk.
Hepatitis A Screening/ Vaccination#	Consider anti-HAV screening and vaccination	Unless contraindicated, hepatitis A vaccination should be given to prevent superimposed acute hepatitis A in patients with chronic hepatitis B virus infection.
Influenza Vaccination#	Annually or per season	As recommended under the National Adult Immunisation Schedule (NAIS) and National Childhood Immunisation Schedule (NCIS).
Pneumococcal Vaccination (PCV13 or PPSV23)#	As per guidelines depending on age and other medical conditions	As recommended under the National Adult Immunisation Schedule (NAIS) and National Childhood Immunisation Schedule (NCIS).
Sexually transmitted diseases and Hepatitis C screening	Screening in patients with high-risk behaviours[27]	
Metabolic disease screening - blood pressure measurement, lipid profile, weight and BMI assessment, diabetes screening	As per guidelines	Development of fatty liver and metabolic risk factors further increases risk of liver cirrhosis and HCC.

* More frequently if clinically indicated

This is a non-reportable clinical indicator

Part II: Consideration for Collaborative Care

Specialist Referral Recommended
Gastroenterology referral recommended in patients with: • Persistently elevated ALT • Abnormal AFP • Other abnormal lab results: low albumin, raised bilirubin, low platelets • Signs of cirrhosis, HCC or other abnormal lesions on US HBS • Positive HBeAg at 40 years old and beyond • Clinical signs of chronic liver disease[28] • HIV or hepatitis C co-infection **Emergency department referral recommended in patients with:** • Clinical signs suggestive of acute liver injury or hepatic decompensation[29]
Consider Collaborative Care or Anchoring Care with Primary Care Physician
In patients who: • Are in stable condition/inactive carrier state without complications (e.g. liver cirrhosis)

Part III: Claimable/Non-Claimable Items

Specific Examples of Claimable/Non-Claimable:
Claimable • HBsAg and IgM anti-HBc tests leading to the positive diagnosis of chronic hepatitis B infection • Routine investigations for chronic hepatitis B follow-up and surveillance for HCC (blood tests, US HBS) • Medications for the management of chronic hepatitis B including antivirals (e.g. Peginterferon alfa-2a, Entecavir) • Medications for the treatment of complications of chronic hepatitis B including liver cirrhosis, but excluding HCC

[26] High-risk factors include family history of HCC, regular alcohol consumption or immunocompromised state (history of HIV, long-term use of steroids, chemotherapy or immunotherapy).
[27] High-risk behaviours include men who have sex with men, unprotected sex with multiple sexual partners, injection drug users, tattoos, sharing of household articles contaminated with blood.
[28] Clinical signs include jaundice, hepatomegaly, ascites, pedal oedema and other stigmata of chronic liver disease (palmar erythema, spider naevi, telangiectasia, bleeding gums, purpura).
[29] Clinical signs include new onset of clinical jaundice, acute or overt gastrointestinal bleeding or ALT ≥1000 U/L.

Part III: Claimable/Non-Claimable Items (continued)

Specific Examples of Claimable/Non-Claimable:
Non-claimable • HBsAg tests for asymptomatic screening purposes not leading to the positive diagnosis of chronic hepatitis B infection • Health supplements or vitamins such as vitamin B (except for cases with established deficiencies) • Traditional or complementary medicine such as herbal medicine or homeopathy • Neoplasm treatment (including for HCC), which should be claimed under other existing MediSave limits instead, such as limits for neoplasm scans, chemotherapy or radiotherapy[30]

References

1. SingHealth Polyclinics Doctors' Guidebook: Hepatitis B (May 2017)
2. National Healthcare Group Clinical Practice Guidelines: Management and Follow-up of Chronic Hepatitis B infection
3. National University Polyclinics Clinical Practice Guidelines: Chronic Hepatitis B Carriers (Jan 2021)
4. Academy Of Medicine, Singapore Report of the Screening Test Review Committee (March 2019) Guidelines
5. Ministry of Health Clinical Practice Guidelines for Chronic Hep B Infection (2011) – *withdrawn**

**MOH clinical practice guidelines are considered withdrawn five years after publication unless otherwise specified in individual guidelines. While some components of previously issued guidelines may still be relevant, users should keep in mind that evidence-based guidelines are only as current as the evidence that supports them and new evidence can supersede recommendations made in the guidelines.*

[30] While HCC is recognised as a complication for chronic hepatitis B so that patients are identified as having a complex chronic condition, treatment for HCC will not be claimable under CDMP/CHAS. Cancer patients are generally monitored for about 5 years after treatment completion, and scans or other diagnostics done in this period are claimable under the $600 MediSave limit for neoplasm scans; surveillance for HCC as a care component for chronic hepatitis B which is conducted 5 years after cancer treatment completion should be claimed under the CDMP limit, and not the $600 neoplasm scans limit.

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 and CKD (Nephritis/Nephrosis)**.

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

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

Chronic Condition	Reportable Clinical Indicators Per Year[31]
Diabetes Mellitus	• Two blood pressure measurements • Two bodyweight measurements • One serum cholesterol level (LDL-C) test • Two haemoglobin A1c (HbA1c) tests • One kidney assessment (additional indicators for patients with nephropathy will follow that of Nephritis/Nephrosis) • One eye assessment • One foot assessment • One smoking assessment[32]
Pre-diabetes	• One blood pressure measurement • Two bodyweight measurements • One serum cholesterol level (LDL-C) test • Two or more blood glucose tests (HbA1c, FPG, 2-hour OGTT) as appropriate[33] • One kidney function assessment (if on metformin; additional indicators for patients with nephropathy will follow that of Nephritis/Nephrosis) • One smoking assessment[24]*
Hypertension	• Two blood pressure measurements • Two bodyweight measurements • One kidney assessment (additional indicators for patients with nephropathy will follow that of Nephritis/Nephrosis)* • One smoking assessment[24]
Lipid Disorders	• One serum cholesterol level (LDL-C) test • One smoking assessment[24]

[31] 'Per year' refers to 12 months from the first visit of the patient for the chronic condition(s).
[32] Annual reporting for smokers, and once-off reporting required for non-smokers unless there is a change in smoking habit.
[33] Refer to Clinical Guidelines for Pre-diabetes (p22-28) for more details.

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

Chronic Condition	Care Components Per Year[23]
Asthma	• Two Asthma Control Assessments • One smoking assessment[24]
COPD	• One bodyweight measurement • One COPD Assessment Test (CAT) score • One smoking assessment[24] • One influenza vaccination (per year/season)
Chronic Kidney Disease (Nephritis/Nephrosis)	• Two blood pressure measurements • One kidney function– serum creatinine and/or eGFR • One urinary protein – urine Protein Creatinine Ratio (uPCR) or Albumin-Creatinine Ratio (uACR)*

**Reportable from 1 Jan 2022 onwards*

1.2 Although data submission is not required for the remaining conditions, clinicians are advised to manage according to best clinical practices and document recommended 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 [23]
Diabetes Mellitus	• One influenza vaccination (per year/season) • One or two pneumococcal vaccinations (depending on age and other medical conditions)
Hypertension	• One serum cholesterol level (LDL-C) test (at or soon after diagnosis)
Lipid Disorders	• One serum transaminase (before starting statins and as clinically indicated) • One serum creatine kinase (before starting statins and as clinically indicated)
Asthma	• One spirometry (at or soon after diagnosis, or when clinically indicated) • One influenza vaccination (per year/season) • One or two pneumococcal vaccinations (depending on age and other medical conditions)
COPD	• One spirometry (at or soon after diagnosis) • One or two pneumococcal vaccinations (depending on age and other medical conditions)
Chronic Kidney Disease (Nephritis/ Nephrosis)	• One influenza vaccination (per year/season) • One or two pneumococcal vaccinations (depending on age and other medical conditions)

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

Chronic Condition	Minimum Clinical Indicators Per Year [23]
All Mental Illnesses	• One Clinical Global Impression (CGI) Scale for each item (severity, improvement) • One Global Assessment of Functioning (GAF) score • One Sheehan Disability Scale (SDS) score
Major Depression (additional indicators)	• One PHQ-9 score (at the intake assessment, prior to step-down/discharge and 6-monthly)
Schizophrenia (additional indicators)	• One blood test for fasting blood glucose and lipid profile[34]
Stroke	• One thromboembolism risk assessment (as clinically indicated) • Two blood pressure measurements • One serum cholesterol level (LDL-C) test • One smoking assessment[24] • One influenza vaccination (per year/season)
Dementia	• One influenza vaccination (per year/season)
Osteoarthritis	• One bodyweight measurement • One Activities of Daily Living (ADL) assessment
Parkinson's Disease	• One influenza vaccination (per year/season)
BPH	• One Urine Labstick or Microscopy (at initial assessment)
Epilepsy	• One influenza vaccination (per year/season)
Osteoporosis	• One DEXA scan (at least once every 1-3 years) • One WHO Fracture Risk Assessment Tool (FRAX Score)
Psoriasis	• One Body Surface Area (BSA) percentage assessment
Ischaemic Heart Disease	• Two blood pressure measurements • Two bodyweight measurements • One serum cholesterol level (LDL-C) test • One smoking assessment[24] • One diagnostic diabetes test (annually or once every 3 years) • One kidney function monitoring • One influenza vaccination (per year/season) • One or two pneumococcal vaccinations (depending on age and other medical conditions)

[34] Only for patients with Schizophrenia on atypical antipsychotic medications.

2 Collection and Submission of Clinical Data

2.1 The recording of clinical data can be carried out by:

a) Recording the clinical data directly onto electronic records through the CMS installed for electronic submission of clinical data for CDMP/CHAS enrolled patients; **or**

b) Manually recording the clinical data on a hardcopy template. Please note that for *submission* purposes the data will subsequently have to be keyed in via the online CIDC e-Service (see **Annex B**: User Manual for e-Service Clinical Data Submission on page 85) and/or the MHCP system (see the MHCP User Guide available on the MHCP Resource Hub).

3 Deadlines for Submission of Clinical Data to MOH

3.1 Submission of clinical data is an essential and mandatory 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, to minimise backlog in submitting clinical data.

3.3 Clinics can accumulate patient records for submission in batches. However, for batch submissions, regular (e.g. weekly) submissions are encouraged.

3.4 When using the CMS 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 one month after the end of each visit.

CHAPTER FIVE:
FREQUENTLY ASKED QUESTIONS

A. CLINICAL MATTERS

Q1. I have a patient with Diabetes Mellitus, Hyperlipidaemia and Asthma. Which DMPs should I enrol him/her into?

Your patient should be enrolled into both Diabetes AND Asthma DMPs (Please refer to **Annex A** on page 22 for details). He/she will then be able to use MediSave/CHAS to co-pay for the total bill for the treatment administered for all 3 conditions. You will also need to submit clinical data based on the reportable clinical indicators of Diabetes, Lipid Disorders and Asthma.

Q2. My patient has Diabetes Mellitus. However, he also has symptoms and signs of Hypothyroidism. Can I use his MediSave/CHAS to co-pay the thyroid function test?

In this instance, thyroid function test was done to screen for a possible condition and not for monitoring of the primary condition or its complication(s). Hence, it is suggested that his bill be itemised so that the patient can use cash to pay for the thyroid function test and MediSave/CHAS to co-pay the rest of the bill which is related to Diabetes care components. (Please refer to Chapter Three).

Q3. Who decides on the recommended care components?

The recommended care components were drawn from the MOH Clinical Practice Guidelines, MOH ACE Clinical Guidances (ACGs) and best available evidence-based practice where relevant, with inputs from professional bodies, which include leading specialists in the respective fields and respected primary care physicians. They were also endorsed by the Clinical Advisory Committee.

Q4. What if the patient has symptoms suggestive of both Asthma and COPD? Which DMP should I enrol him into?

For patients whose signs and symptoms are not so distinct between the two conditions, spirometry and/or bronchodilator reversibility testing may be performed to help classify the patient into one of the two diagnoses or to differentiate these conditions from other diseases that may mimic its presentation.

It is important to try to classify the patient into the correct DMP as this will help to determine the management of the patient and also prevent any issues with respect to the MediSave/CHAS claims.

Please refer to the MOH Clinical Practice Guidelines and ACE Clinical Guidances (ACGs) for more information on diagnosis and management of Asthma and COPD.

Q5. Can I make claims for ambulatory aids (e.g. walking sticks) for my patient with Stroke, or for oxygen concentrators for my patient with COPD requiring long-term oxygen therapy?

Currently, medical devices not used for the purposes of drug administration are generally not claimable items under MediSave for CDMP/CHAS. However, for a patient with COPD, he may withdraw up to $150 per month from MediSave for rental of devices for long-term oxygen therapy, though it is not covered under CDMP/CHAS. Patients may approach public hospitals for more information.

The Seniors' Mobility and Enabling Fund (SMF) may be used to subsidise purchases of mobility devices for means-tested patients above the age of 60 years old.

Q6. Can I claim for outpatient vaccinations and/or health screenings?

MediSave claims for the following outside the CDMP framework are allowed. These claims fall under the same MediSave500/700 withdrawal limit as the CDMP, i.e. $500/700 per patient per year from 1 January 2021.

<u>Vaccinations</u>
Vaccinations for recommended groups under the National Childhood Immunisation Schedule (NCIS) and National Adult Immunisation Schedule (NAIS)

<u>Health Screenings</u>
a) Mammogram screening for women aged 50 and above; and
b) Selected screening tests for newborns in the outpatient setting.

CHAS claims can be made in the following circumstances:

<u>Vaccinations</u>
a) For patients who are included under recommended groups for vaccination based on the National Childhood Immunisation Schedule (NCIS) and National Adult Immunisation Schedule (NAIS) due to their chronic condition under the CDMP, vaccination subsidies should be applied under the Vaccination and Childhood Developmental Screening Scheme (VCDSS) subsidies implemented since 1 Nov 2020. Any remaining co-payment required after applying VCDSS subsidies can be claimed for under the chronic tier of CHAS subsidies as it is a recommended care component of the relevant chronic condition and under the MediSave500/700 scheme; and
b) For patients not under recommended groups for vaccination based on the NCIS and NAIS, the cost of consultation for vaccinations, but not the cost of the vaccines, can be claimed under the acute tier of CHAS subsidies.

<u>Health Screenings</u>
Tests for recommended health screening by the Health Promotion Board (HPB) are subsidised at participating CHAS clinics under the Screen for Life (SFL) programme.

B. REGISTRATION MATTERS

Q1. What are the requirements to be on the CDMP?

Clinics that wish to participate in the CDMP must agree to:

c) Provide treatment to chronic disease patients through evidence-based DMPs. These DMPs will include MOH-recommended key treatment components;
d) Treat patient medical information with confidentiality;
e) Submit to MOH, with the informed consent of patient, data on patient care delivery on a monthly basis or as specified by MOH. Relevant aggregated performance data will be published to assist patients in making informed choices;
f) Be accredited for the use of MediSave for CDMP; and
g) Be periodically reviewed and audited, both clinically and administratively. Any clinic/medical institution that fails to satisfy the minimum standards of clinical performance set by MOH, will be asked to withdraw from the Programme.

Q2. How do I register for the CDMP?

For clinics who are not in the CDMP, they must submit the following forms for registration:

a) E-Application for Clinics to Participate in the MediSave for Chronic Disease Management Programme (by MOH);
b) Direct Authorisation Credit Form (by CPF Board);
c) GIRO Form (MediClaim charges by NCS); and
d) GIRO Form (MediSave charges by CPF Board).

The E-Application website can be accessed via https://www.mediclaim.moh.gov.sg/mmae/OverviewApplication.aspx

Clinics participating in the CDMP will also have to sign a Deed of Indemnity with the CPF Board.

Doctors need to be individually registered under the Programme in order to process MediSave claims for their patients. Doctors can do so by submitting the Application Form for Medical Professionals, which can be found in the link: http://www.mediclaim.moh.gov.sg/mmae/DoctorApplication.aspx.

Q3. My clinic is already participating in CDMP. Can I make MediSave claims for my patient who is suffering from Schizophrenia, Major Depression, Bipolar Disorder or Anxiety?

In addition to participating in CDMP, your clinic will also need to participate in the Mental Health GP Partnership Programme (MHGPP) and attend the CDMP-MI training provided under MHGPP before your clinic is registered as a "CDMP-MI" clinic, and MediSave claims for patients with mental illnesses can be made. This is part of an assurance framework to ensure quality of care for patients. More details on the

requirements for MHGPP are under para 1.3 of Chapter Two: Registration and Medisave Use.

Q4. How do I register for a Mental Health GP Partnership Programme with a Restructured Hospital?

You may register via MOH's MMAE website (http://www.mediclaim.moh.gov.sg/mmae/overview.aspx) by selecting the "Chronic Disease Management Programme (CDMP) – Shared Care Programmes".

Q5. What will be the cost of registration and start-up?

Apart from computer hardware and internet access subscription (which may already be in place), there is a one-time non-refundable cost of $191.20 (inclusive of 7% GST and delivery fee) for the security token to access the MediSave claims system. The token is valid for two to three years. The subsequent token is priced at $171.20. This security token is required only when using the MediClaim e-service.

You or your staff will need to attend a half-day training session on MediSave claims process, guidelines on MediSave use and the use of the MediClaim system. This training session is free-of-charge.

Q6. How do patients sign up for the CDMP?

All patients treated by a MediSave- and CDMP-accredited doctor for at least one of the approved chronic conditions are eligible for CDMP. The patients need to complete the Medical Claims Authorisation Form in order for MediSave claims to be made.

C. MEDISAVE CLAIMS, REIMBURSEMENT, BILLING

Q1. In total, how much can patients claim from MediSave for chronic disease treatments?

From 1 January 2021, patients can claim up to $500 per year for outpatient treatment of their simple chronic conditions under the CDMP, and up to $700 per year for outpatient treatment of their complex chronic conditions under the CDMP.

Q2. Whose MediSave account(s) can a patient make use of, apart from his/her own?

Patients can use their own MediSave account(s) and the account(s) of their immediate family members (i.e. parents, children, and spouse). In addition, patients who are Singapore Citizens or PRs can also use the MediSave accounts of their siblings or grandchildren. Claims can be made once the MediSave payer has signed the relevant Medical Claims Authorisation Form.

Q3. What will be the exact level of deductible and co-payment?

The $30 deductible has been removed since 1 July 2014. There is still a 15% co-payment of the CDMP bill for each claim that the patient has to pay in cash.

Q4. Who should submit MediSave claims?

Any of the permanent staff of a MediSave-accredited clinic/medical institution who has attended the training sessions, e.g. doctors, nurses, counter staff, clinic managers, can submit MediSave claims.

Q5. If the patient sees me for both a chronic condition and an acute condition at the same time, can the entire bill be claimed?

MediSave can only be used for treatment related to the CDMP conditions listed, subject to a cap of $500 per patient per year. Patients with complex chronic conditions will be eligible to withdraw up to $700 per patient per year. If patient attendance is purely for an acute or unrelated condition, MediSave deduction is not allowed even though the patient may have an existing chronic condition. Checks will be made during audits to ensure that claims made are only in relation to the approved chronic conditions and/or their complication(s).

Q6. How does the annual cycle of the $500/700 limit apply? Is it calculated based on the time that the patient first seeks treatment under the scheme?

The $500/700 annual limit is reset at the start of each calendar year, i.e. $500/700 for the period from 1 January to 31 December.

Q7. Will MediSave use be allowed for purchasing equipment (e.g. blood pressure monitoring equipment or glucometer, etc.)?

In line with existing MediSave guidelines, MediSave use generally does not cover equipment purchase, whether for chronic disease treatment or other uses, unless otherwise specified in Chapter Three: The Clinical Guidelines of the handbook.

Q8. How will I know if the patient has sufficient balance left for claims?

To help patients and their family members keep track of the amount of MediSave used under MediSave500/700, participating clinics can check the MediSave balances under the CDMP on behalf of their patients, upon authorisation from patient.

An enquiry function to check the available withdrawal amount is available via the MediClaim e-service, MHCP and selected Clinic Management Systems under the SmartCMS Programme. Clinics may use this function to check the remaining balance of the MediSave account holder with his/her consent.

Alternatively, you can request for the MediSave holders to show you a print-out or electronic statement of their current MediSave balance. They can obtain their current MediSave balance from the CPF Board's website (www.cpf.gov.sg) by logging in with their SingPass at My CPF Online Services - My Statement. You may wish to ask your patients to bring along a copy of the MediSave balance of all relevant MediSave payers if you do not have a computer terminal at your clinic.

Q9. If the MediSave balance is insufficient to cover the costs, can the patient top up the difference in cash?

Yes.

Q10. Can the bill be split among two or more accounts according to a given percentage?

Yes, a claim can be shared by a maximum of 10 MediSave accounts.

Q11. Will patients have to pay the full amount upfront and then be reimbursed or can they make partial payment based on estimated MediSave payout?

This decision will depend on the individual clinics. However, clinics should explain to their patients on the mode of payment clearly to avoid any confusion or unhappiness.

Q12. How will refunds for MediSave withdrawals be handled (e.g. if a patient opts out of a package)?

The clinic will have to amend the approved MediSave claim through the MediClaim system to return the money back to the relevant MediSave accounts. CPF Board will liaise with the clinics to debit and credit the amounts accordingly, if necessary. MediSave and cash should be refunded based on the respective amounts that would have been collected, if the clinic had not collected upfront payment and patients were charged at the point of consumption of the respective services[35].

Please note that since June 2018, package claims have been disallowed under MediSave500/700.

Q13. If patients have signed up for the Programme, can they opt out of it at a later date? Do I need to refund the amount that he had paid up for a package?

Patients can opt out at a later date by informing the clinic from which he/she is receiving care. Funds that have been withdrawn from MediSave for a package but not yet utilised at the point of the patient opting out of the Programme, must be reimbursed to the respective MediSave accounts.

Please note that since June 2018, package claims have been disallowed under MediSave500/700.

Q14. Is MediSave withdrawal dependent on the patient having only one specific primary care provider?

No. Patients are encouraged to have continuity of care with one family physician, but they are free to choose and switch providers. Hence, they can make MediSave claims at any MediSave-accredited clinic.

[35] Clinics have to ensure that cash co-payment of 15% of the final bill remains after amendment of the MediSave claim.

Q15. How will claims be made if a patient is referred to an unaccredited provider?

MediSave claims will not be allowed at an unaccredited clinic. However, the referring party can make billing arrangements on behalf of his unaccredited partners. The referring party is expected to bear full responsibility for any such arrangements made, including if incorrect claim submissions are subsequently discovered. In addition, the referring party is also responsible for the submission of clinical data for the patient. For avoidance of doubt, CDMP withdrawals should not be made for patients managed by overseas doctors or institutions.

Q16. How will the scheme apply to Permanent Residents and Foreigners?

Current MediSave rules apply. Permanent Residents are able to tap on their immediate family members (parent, child, spouse), siblings or grandchildren's MediSave accounts. Foreigners are able to tap on their immediate family members' MediSave accounts.

Q17. How will the scheme apply to those who have employer medical benefits or an existing comprehensive insurance plan?

Employer medical benefits (including for pensioners) or an existing comprehensive insurance plan should be applied before MediSave use. Any amount in excess of the employer medical benefits or the insurance plan can be paid using MediSave, and is similarly subject to 15% cash co-payment. Clinics will have to liaise directly with their partnering employers for payment under employer plans as per their current arrangements.

Q18. What is the process of making MediSave claims like? Will it involve a huge change in my clinic operations?

The process is as follows:

a) The clinic/doctor should explain the following to patients suffering from any of the approved chronic conditions and their immediate family member(s) whose MediSave account(s) is/are being used (if any):
   - the treatment components
   - the cost of treatment
   - estimated amount that can be claimed from MediSave
   - the out-of-pocket cash payment that the patient will need to make

b) When the patient and/or his/her immediate family member(s) have decided to use MediSave for the bill, each MediSave account holder who wishes to make use of his/her MediSave account need to sign a Medical Claims Authorisation Form (MCAF) to authorise the CPF Board to deduct his/her MediSave savings for the treatment of the patient. The authorisation can be made on a per treatment basis or over a period. Authorisation over a period of time stands until revoked in writing. Clinic/medical institution staff should ensure that the particulars stated on the form match those stated in the NRIC or identification document provided and also verify relationships declared, where possible. The clinic/medical institution staff should ensure that the

patient and additional MediSave payer(s) understand and acknowledge the relevant paragraphs in the form. A witness has to verify that the patient and additional MediSave payer(s) have completed and signed the form. The witness must be a Singapore Citizen or Permanent Resident aged 21 years and above, and must not lack mental capacity. Where the institution's staff is acting as a witness, the SC/PR and age requirements are lifted.

c) Clinics/medical institutions can then submit the MediSave claims electronically to the CPF Board for processing via the MediClaim System.

d) Payment will be made daily to MediSave-accredited medical institutions via InterBank Giro (IBG) on the 3rd working day after the approval date of the MediSave claims.

Q19. Can admin fees be charged for claims?

No, clinics are not allowed to charge admin fees for MediSave claims.

Q20. Can GPs who are contracted by nursing homes to provide outpatient care for their residents help the ones suffering from one of the approved chronic conditions make MediSave claims?

Yes, if the GP and his/her clinic are accredited for MediSave use for CDMP. He/she can help the nursing home patients to make a MediSave claim for their outpatient chronic disease treatment(s) through his/her clinic.

Q21. Am I allowed to waive the 15% cash co-payment requirement for my patient?

No. Clinics that wish to provide discounts to the patients based on the clinics' own business model should account for the discount in the final bill amount submitted in the claim system i.e. the final bill amount submitted in the claim system should be the charges after the discount is applied. The 15% cash co-payment and MediSave-claimable amount will be computed based on the charges after discounts are applied.

D. DATA SUBMISSION, CLINICAL IMPROVEMENT AND AUDITS

Q1. Why is the patient's medical and treatment history required?

The data collected will provide a better profile of patients on CDMP/CHAS for programme planning and management purposes, and shared with other providers managing the patients to facilitate patient care if the patient's consent has been obtained.

Q2. Must the medical history be captured at each visit?

The items in the medical history data will only need to be captured once but should be updated as and when there are changes.

Q3. How do I record the actual year of diagnosis of patients with long standing chronic diseases?

The estimated year of diagnosis for the patient's chronic condition can be recorded if the exact year is not known.

Q4. Will data on all clinical parameters be required at every visit?

No. Only data on assessments or tests performed during the visit need to be captured.

Q5. Would I need to repeat HbA1c or LDL cholesterol if my patient is able to produce the results of a test done elsewhere?

You can submit the relevant details of your patient's test results that have been performed elsewhere instead of repeating the test if it has not been submitted by the other clinic. If you do so, please keep a copy of the record of the test results.

Q6. What if the patient is lost to follow up?

Please note it down in your clinical documentation. Alternatively, if you are using the web-based CIDC e-Service for data submission, you may also document the information using the textbox available under the Patient Participation Module present on the navigation bar. If you are using CMS for data submission, please contact your CMS provider for more details on capturing of this type of information electronically.

Q7. What if the patient refuses certain tests?

Tests are performed, when indicated, as part of the proper management of the chronic disease. As such, the physician should inform the patient as to the rationale and provide other key information regarding these tests. If the patient refuses the tests, please note this response in the patient's clinic notes.

Q8. If I missed the previous deadline for submission of clinical data, do I still need to submit the data for that period?

Yes, you should still submit the relevant data for that period as well as the current data.

Q9. Which healthcare provider should submit clinical data if the patient makes MediSave/CHAS claims at three different healthcare providers over the year?

It would be appropriate for each provider to collect relevant data for the care that has been provided, and to submit the data. If they are not able to make the submission, they should forward the data to the primary physician who is coordinating the care of the patient's chronic condition so that he/she may be updated and make the submission.

Q10. If a patient starts making MediSave/CHAS claims from June onwards, must I submit clinical information captured before June?

You can capture the relevant clinical data of the patient. However, for the purpose of assessing the care process and outcome of the chronic condition, the period of one year (taken from the date when the patient first enrolled into the CDMP/CHAS for the chronic condition) will be used.

Q11. My patient claimed MediSave/CHAS for treatment of a chronic condition when he first consulted me on 5 Jan 2020, but paid cash for three subsequent visits (in Mar, Jul, Oct 2020) for the same chronic condition. Would I still need to submit clinical data for the latter three visits?

Yes, you should continue to submit the patient's clinical data on this chronic condition for one year from 5 Jan 2020.

Q12. Can the clinical data submitted be shared by different healthcare providers within the same clinic/institution/cluster?

It is only allowed if consent has been obtained from patients to share their clinical data with other clinics managing their conditions, through the Medical Claims Authorisation Form (Single). Alternatively, clinics can have their own data sharing policies (in line with the Personal Data Protection Act (PDPA)) which patients have to consent to.

Q13. If I have already fulfilled the number of reportable clinical indicators for the chronic condition, do I still need to submit clinical data subsequently?

The reportable clinical indicators are part of the essential aspects of medical care that are recommended for management of the chronic conditions. The data submission system allows you to submit more than the recommended frequency of reportable clinical indicators.

Q14. How will the clinical data submitted be used?

The clinical data received will be used to monitor the success of the CDMP/CHAS, and also to give feedback routinely to the registered clinics for quality improvement.

If the patient had signed the MCAF (Single) form, the clinical data can also be used:

a. to facilitate the patient's treatment;
b. to check the patient's healthcare information, withdraw from the patient's MediSave and/or claim for health insurance policies; and
c. for data analysis, evaluation, and policy-making and review by the Government and CPF Board.

If the patient had signed the MCAF (Multiple) form, the clinical data can also be used:

a. to check the patient's Medisave and Health Insurance Policy information in order to facilitate the patient's claims;
b. to process and administer the patient's claims;
c. to assess and audit the patient's Claims and adjudicate claims-related disputes; and
d. for data analysis, evaluation and policy-making and review by the Government and CPF Board.

Clinical data submitted have been routinely fed back to clinics via the CDMP Online reports via the MediClaim system since the first quarter of 2008. In the CDMP Online reports, a clinic will be able to compare its performance against the aggregated local and national performance under CDMP. Over time, each clinic will also be able to track its own performance trends.

Q15. What will the clinical quality improvement process be like?

The clinical data that is monitored is useful for clinical quality improvement in the care of chronic conditions. When meaningfully used, it will support providers in the management of their patients' chronic conditions, resulting in better care outcomes.

Q16. What will the clinical audit process be like?

Periodic audits will be carried out to ensure completeness/accuracy of clinical data submission and to ensure that minimum standards of performance are met. Due consideration will be given so that such audits do not disrupt clinic operations and patient care processes.

Q17. What documents must I submit if my clinic is selected for audit?

Photocopies of the following documents should be submitted by post:

a) Doctor's clinical notes for the visit/visits submitted for specified claim;
b) Laboratory results relevant to the medical condition(s) for which claim was made e.g. HbA1c, lipid panel, spirometry test etc;
c) Prescription or clinical notes with documentation of details of the drugs prescribed (i.e. name of drug, frequency, dose, duration); and
d) Invoices/receipts showing the itemized breakdown (medication(s), investigation (if any), consultation & total claim amount) of the bill(s) submitted for claim.

Q18. Am I allowed to divulge patients' medical information to the CDMP/CHAS audit teams for audit?

Yes, clinics are subject to audits by CDMP/CHAS auditors appointed by MOH, as stated in the MediSave Terms & Conditions. In addition, the patient would have provided consent to sharing his/her medical information under CDMP/CHAS for the purpose of the audit when he/she signed the Medical Claims Authorisation Form/provides deemed consent by presenting their CHAS card and/or accepting CHAS subsidies.

Q19. How do I submit my bills for audit?

All items claimed need to be itemised.

Annex B

User Manual for Clinical Data Submission via CIDC E-Service

1 Introduction

1.1 Purpose

1.1.1 The manual serves as a guide on how to use the Clinical Indicators Data Collection (CIDC) e-Service for the submission of data to MOH as part of CDMP.

1.1.2 The manual is intended for the hospital/clinic staff who are doing clinical data and indicators submission. The staff should already be familiar with web browsing and the MediClaim e-Service.

1.2 System Requirements

1.2.1 In order to use the CIDC e-Service, an Internet-enabled computer with the following is required:

a) Hardware Requirements
The minimum recommended hardware configuration is:
- CPU 1 GHz or faster process with 4GB RAM
- At least 10 GB free hard disk space

b) System Software Requirements
- Windows 10
- Internet Explorer 11.0 and above
- Broadband Internet Connection

c) Other Requirements
- CorpPass account

2 Getting Started

2.1 User Account

2.1.1 You will be using your MediClaim system user account to access the CIDC e-Service. The MediClaim account is the same one used for the submission of claims.

2.1.2 If you do not have an account for the claim submission, you will need to approach MOH for the creation of a new account.

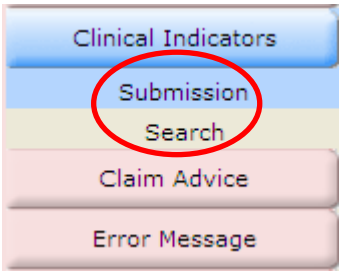
2.2 Accessing the CIDC e-Service

2.2.1 The web URL to access the MediClaim system is: https://www.mediclaim.moh.gov.sg/.

Screen 1: MediClaim Login Screen

2.2.2 Upon successful login to the MediClaim system, you will be able to see the CIDC e-Service in the left-hand menu as shown on Screen 2 below. All users with access to the Chronic Disease Claim Form e-Service will have access to the CIDC e-Service.

2.2.3 Click on the menu to display the functions available:



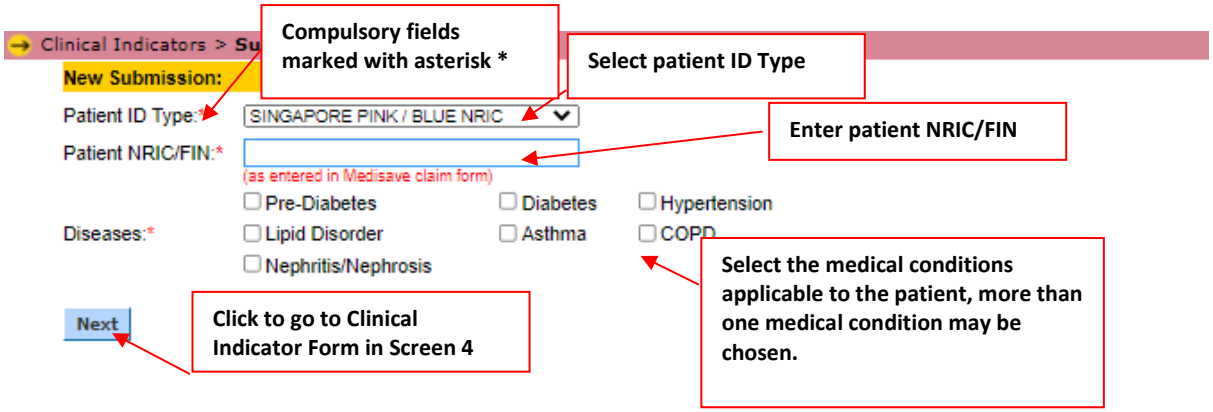
Screen 2: Menu

a) *Submission* is used to submit a new report.
b) *Search* is used to retrieve submitted reports.

3 Clinical Indicators Report Submission

3.1 This function is used to submit clinical data on patients who have used their MediSave under the CDMP. A new submission can be made each time there is additional indicator information for the patient either on a per visit basis or consolidated over a few visits. All submissions are distinct and will be used for analysis by MOH on a cumulative basis.

3.2 To submit a new set of clinical data for a patient to MOH, click on the "Submission" sub-menu. The following screen will appear.



Condition	Care Components Per Year
Pre-Diabetes Mellitus	• One Blood Pressure (Systolic) • One Blood Pressure (Diastolic) • Two Body Weight Measurement • One Serum Cholesterol Level (LDL-C) test (mg/dL) or (mmol/L) • One Serum Creatinine (µmol/L) • One eGFR (ml/min/1.73m^2) • Two or more Haemoglobin A1c (HbA1c) test/ Fasting Plasma Glucose (FPG) (mmol/L)/ Oral Glucose Tolerance Test (OGTT) (mmol/L), as appropriate • One Smoking Habit Assessment - Estimated Number of Cigarettes Smoked/Day
Diabetes Mellitus	• Two Blood Pressure (Systolic) • Two Blood Pressure (Diastolic) • Two Body Weight Measurement • Two Haemoglobin A1c (HbA1c) test • One Serum Cholesterol Level (LDL-C) test (mg/dL) or (mmol/L) • One Estimated Number of Cigarettes Smoked/Day • One eye assessment • One foot assessment • One Urine ACR (mg/mmol) • One Urine PCR (mg/mmol) • One Serum Creatinine (µmol/L) • One eGFR (ml/min/1.73m^2)
Hypertension	• Two Blood Pressure (Systolic) • Two Blood Pressure (Diastolic) • One Body Weight Measurement • One Smoking Habit Assessment - Estimated Number of Cigarettes Smoked/Day • One Serum Creatinine (µmol/L) • One eGFR (ml/min/1.73m2) • One Urine ACR (mg/mmol) • One Urine PCR (mg/mmol)
Lipid Disorder	• One Serum Cholesterol Level (LDL-C) test (mg/dL) or (mmol/L) • One Smoking Habit Assessment - Estimated Number of Cigarettes Smoked/Day
Asthma	• One Smoking Habit Assessment - Estimated Number of Cigarettes Smoked/Day • Two Asthma Control Assessments
COPD	• One Smoking Habit Assessment - Estimated Number of Cigarettes Smoked/Day • One Body Weight Measurement • COPD Assessment Test (CAT) score • One Influenza Vaccination
Nephritis/Nephrosis	• One eGFR (ml/min/1.73m^2) • One Urine ACR (mg/mmol) • One Urine PCR (mg/mmol) • One Serum Creatinine (µmol/L) • Two Blood Pressure (Systolic) • Two Blood Pressure (Diastolic)

Screen 3: Submission Form

3.2.1 Select the Identification Type and enter the Patient NRIC/FIN.

3.2.2 Select the chronic condition applicable to this patient. You can select one or more conditions, as applicable.

3.2.3 Click on [Next] to proceed to the Clinical Indicator Form.

Patient Details:

Patient Name: *	Ramon	***Patient NRIC/FIN:****	S1234567D
Date of Birth (DDMMYYYY):	01011985	Sex:	◉ Male ○ Female
Race:	Chinese	Height (Metres):	1.78 *(use 9.99 if not measurable)*
Current Smoker	◉ Yes ○ No	2005	Year Started Smoking(YYYY)

** denotes a mandatory field*

Known Medical History:

Medical Condition	Diagnosis Year	Medical Condition	Diagnosis Year
☑ Pre-Diabetes	(YYYY)	☑ Hypertension	(YYYY)
☑ Diabetes	(YYYY)	☑ Lipid Disorder	(YYYY)
☐ DM Retinopathy	(YYYY)	☐ Coronary Heart Disease (CHD)	(YYYY)
☐ DM Nephropathy	(YYYY)	☐ COPD	(YYYY)
☐ DM Foot Complications	(YYYY)	☐ Nephritis/Nephrosis	(YYYY)
☑ Asthma	(YYYY)		

Pre-Diabetes Treatment:

Treatment	Year Started
☐ Oral Medications	(YYYY)

Diabetes Treatment:

Treatment	Year Started
☐ Oral Medications	(YYYY)
☐ Insulin	(YYYY)

Hypertension Treatment:

Treatment	Year Started
☐ Oral Medications	(YYYY)

Lipid Disorder Treatment

Treatment	Year Started
☐ Oral Medications	(YYYY)

Asthma Treatment:

Treatment	Year Started
☐ Preventer	(YYYY)

Clinical Indicators History (Past 12 Months):

Date	Indicators	Value
10-Jun-2021	Cigarettes smoked per day(Avg)	5
08-Jun-2021	DM-Nephropathy Assessment	Y
02-Jun-2021	DM-Nephropathy Assessment	Y
01-Jun-2021	DM-Foot Assessment	Y

Clinical Indicators:

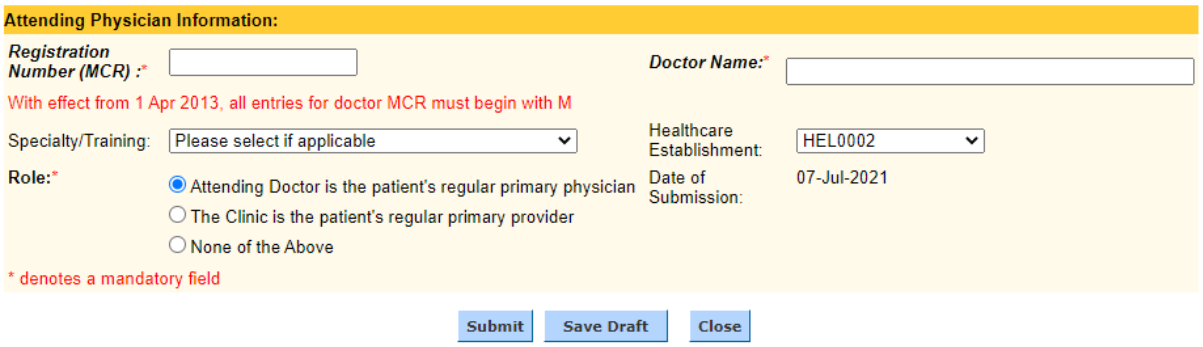
Date of Visit (DDMMYYYY):*			
Blood Pressure (Systolic/Diastolic):	/	DM - Eye Assessment:	○ Yes ○ No
LDL-C:	mg/dL	DM - Foot Assessment:	○ Yes ○ No
HbA1c (%):		DM - Nephropathy Assessment:	○ Yes ○ No
Weight (kg):	*(use 999 if not measurable)*		
Cigarettes smoked per day (average) ## :		COPD Assessment Test (CAT) score	
ACT Score (Asthma only):		Influenza Vaccination Assessment (COPD only):	○ Yes ○ No
Serum Creatinine (µmol/L):		eGFR (ml/min/1.73m^2):	
Urine ACR (mg/mmol):		Urine PCR (mg/mmol):	
Fasting Plasma Glucose (FPG) (mmol/L):		Oral Glucose Tolerance Test (OGTT) (mmol/L):	

** denotes a mandatory field*

For current smokers, smoking cessation advice should be given;
For non- or ex-smoker, please reinforce the benefits of not smoking cigarettes

Applicable to current smokers only

Add Indicators *Click to add clinical indicators (only those performed)*



Screen 4: Clinical Indicator Form

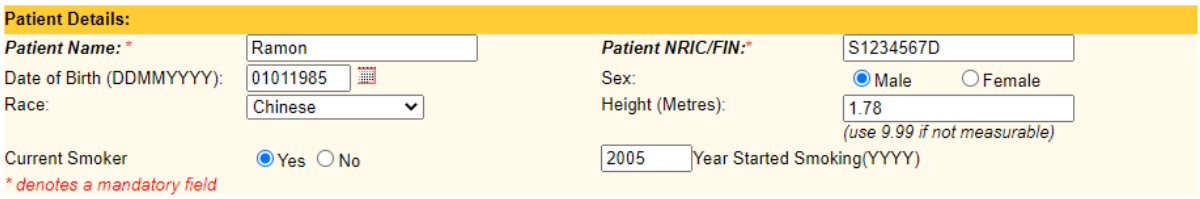
3.3 The Clinical Indicator Form consists of 4 sections:

a) Patient Details,
b) Known Medical History,
c) Clinical and Assessment Indicators, and
d) Attending Physician Information.

4 Patient Details

4.1 This section details the patient's basic bio-data. If it is your first submission for the patient, only Patient NRIC, Name, Date of Birth, Sex, Race, and Current Smoker is required. For subsequent submissions, only the Patient NRIC and Name are mandatory.

4.2 In the event of differences between two submissions, the data from the latest submission will be considered as the up-to-date information.

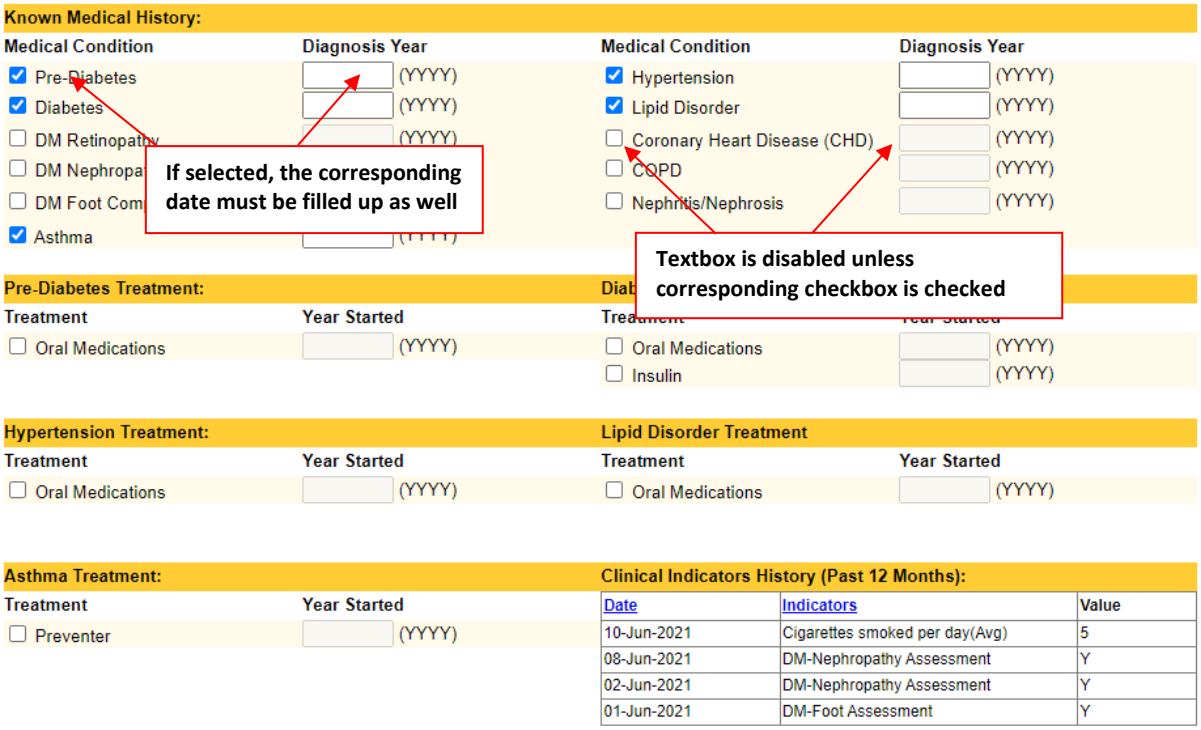


Screen 5: Patient Details

5 Known Medical History

5.1 This section details the patient's medical history. If it is your first submission for the patient, please enter all the details. For subsequent submissions, you can omit the details if there are no changes.

5.2 If you are unsure whether you have submitted the information, it is recommended you fill in the details.



Screen 6: Known Medical History and Treatment Sections

5.3 Enter the relevant medical conditions for the patient. If a particular condition is selected, then the year of diagnosis is mandatory. You only need to fill in medical conditions that apply to the patient.

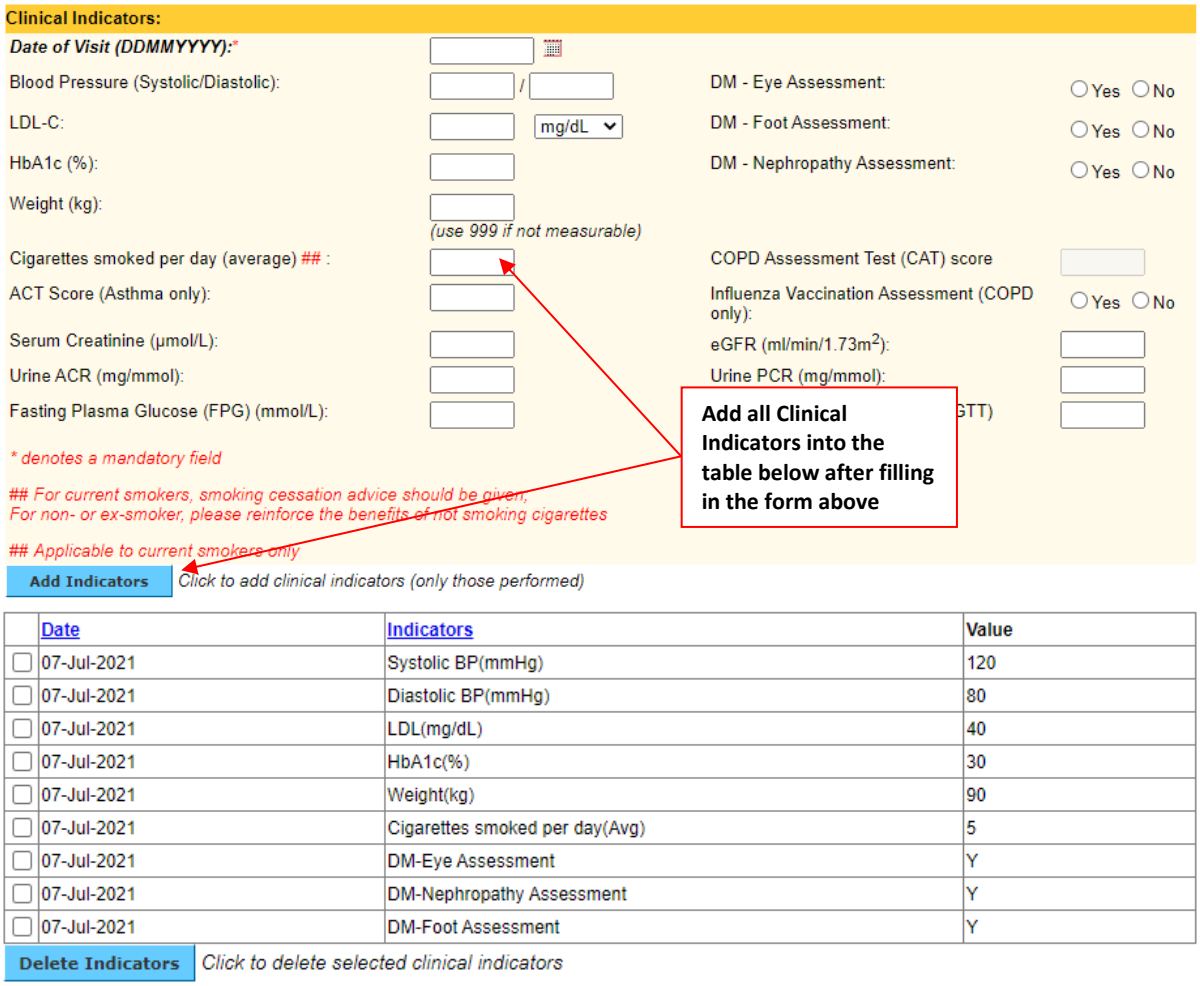
6 Clinical Indicators and Assessment

6.1 This section enables you to enter the indicator measurement and assessment done on the patient over any period. Only measurements and assessments not reported previously need to be entered in this section.

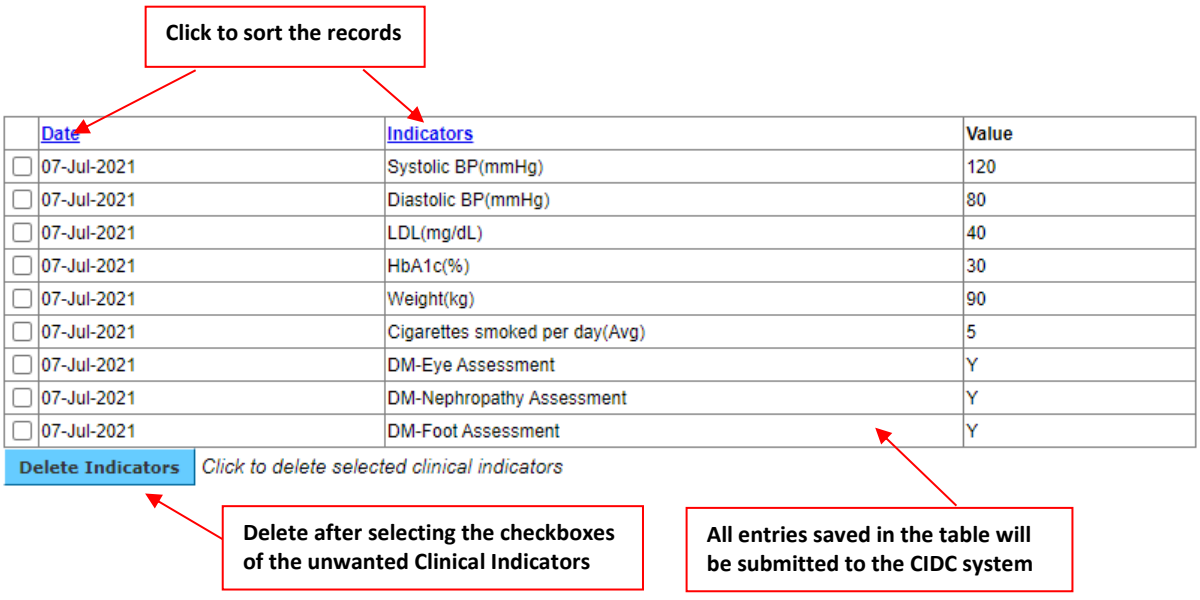
6.2 Initially there will be no clinical indicators added to the report.

6.3 Fill in all the clinical indicators and use the [Add Indicators] button to save them (as shown in Screen 7).

6.4 There must not be any unsaved data left in the Clinical Indicators Section before submitting the form.



Screen 7: Filling in the Clinical Indicators



Screen 8: Clinical and Assessment Indicators

6.5 After saving the data, you can use the delete button to remove any mistakes.

6.6 By default, the data displayed is sorted by date of visit and indicators. You can also click on the “Indicators” and “Date” headers to sort the data according to your preference.

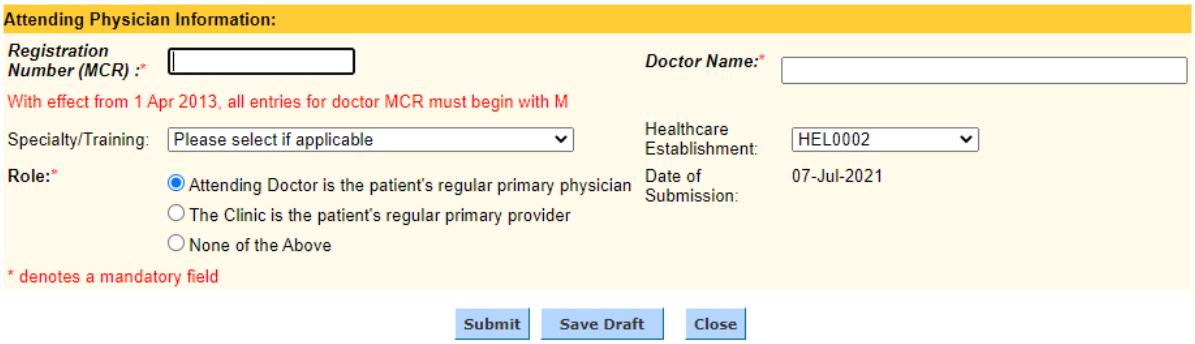
6.7 After saving the data, you can use the delete button to remove any mistakes.

6.8 By default, the data displayed is sorted by date of visit and indicators. You can also click on the “Indicators” and “Date” headers to sort the data according to your preference.

7 Attending Physician Information

7.1 This section details the physician attending to the patient. It is required for each submission.

7.2 If there is more than one physician attending to the patient, the main physician information should be entered here.



Screen 9: Physician Information

8 Report Submission

8.1 Once you have completed the data entry, you can submit the report to MOH by clicking on the [Submit] button.

8.2 If you are not yet ready to submit, you can click on the [Save Draft] button and retrieve the report later from the search function for submission.

The Table below describes the function for each button:

Button	Function Description
Submit	Submits the form after completion. Deletes any existing drafts saved previously.
Save Draft	Saves the inputs in the unfinished form as a draft for completion in the future.
Close	Closes the current form and returns to the main menu.

9 Search Clinical Indicator Reports

9.1 After you have submitted a report or created a draft, you can retrieve the reports at a later stage using the search function. This function allows you to specify search criteria and retrieve all reports matching the criteria.

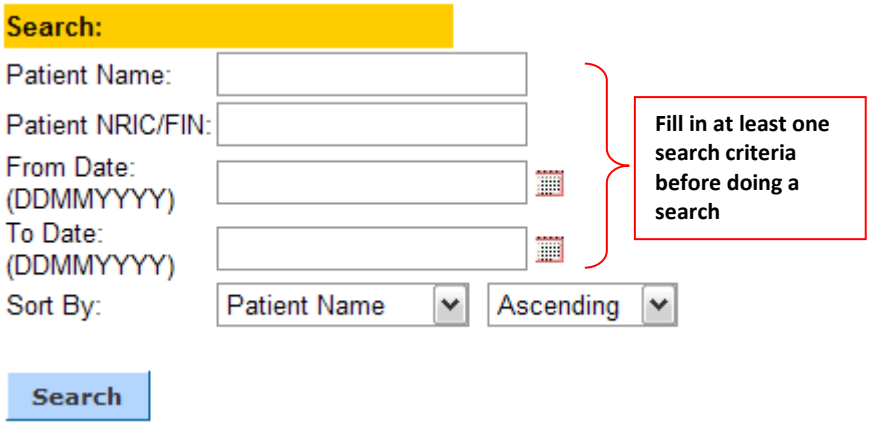
9.2 After retrieving the report, you can also proceed to “Amend” it if there was any mistake in the previous submission, or delete it altogether.

9.3 To access this function, click on the “Search” sub-menu under the “Clinical Indicators” main menu as shown on Screen 10.

Screen 10: Search Menu

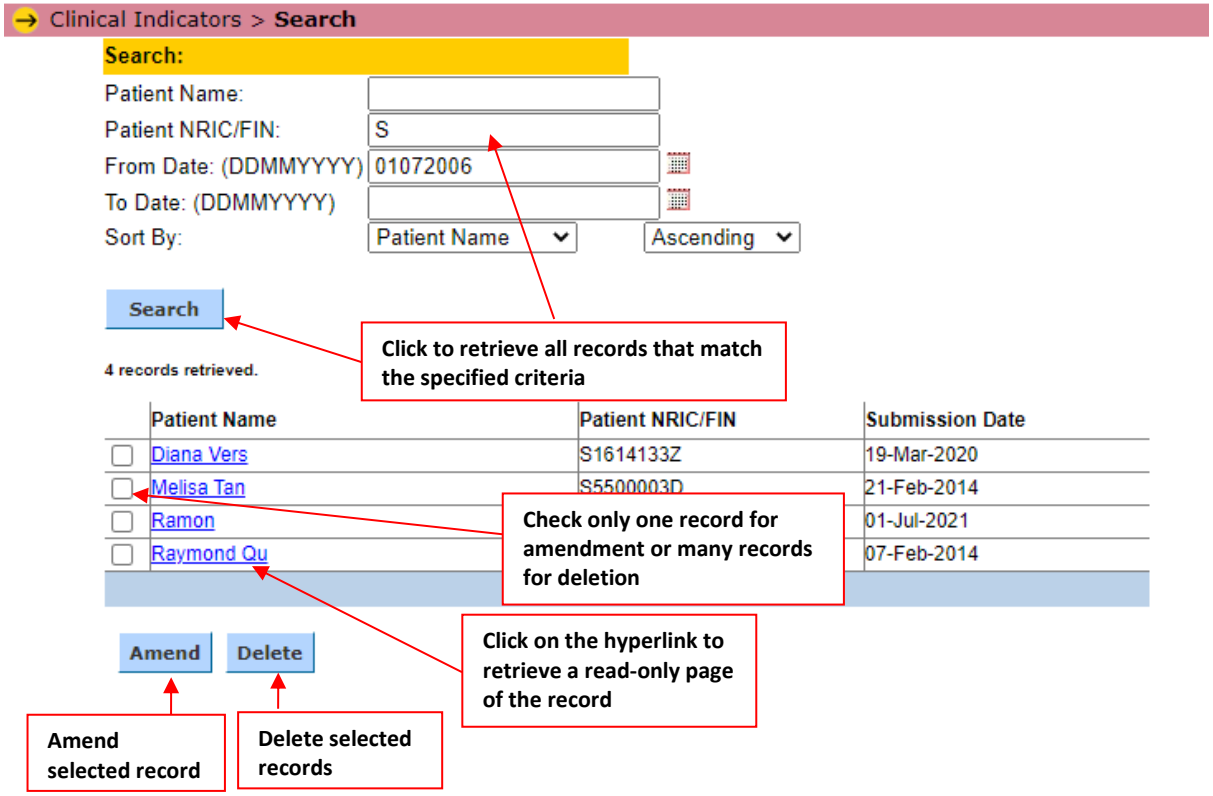
9.4 The Search page will be shown. Enter your search criteria and click on the [Search] button. The search is case insensitive.

9.5 At least one of the search criteria must be entered before you can proceed with the search.



Screen 11: Search Criteria

9.6 All submissions made by your clinic which matches the criteria will be displayed as shown on Screen 12.

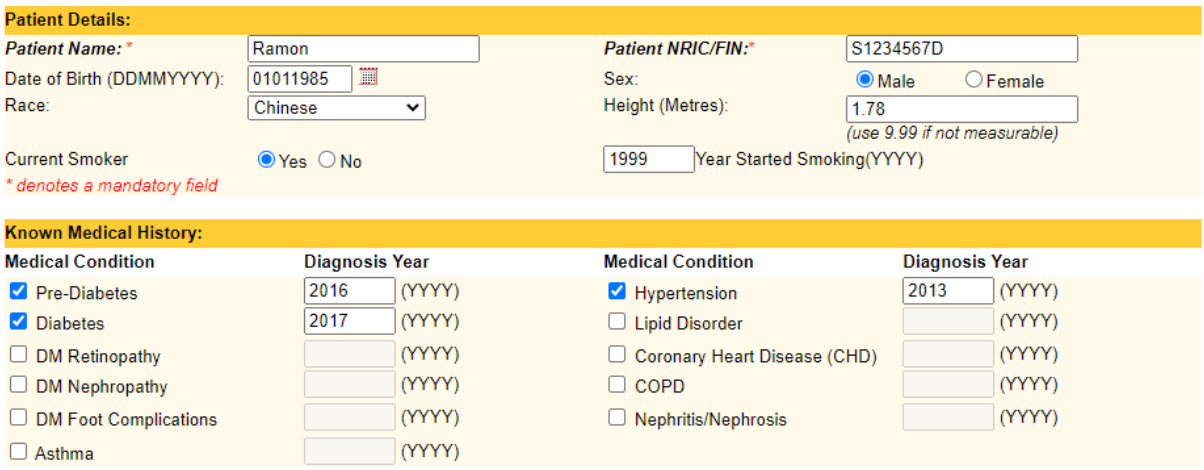


Screen 12: Search Results

9.7 If the number of search results is too large, you can either specify more restrictive search criteria or use the page number to navigate through the results.

9.8 Click on the Patient Name hyperlink to view the report submitted.

9.9 When the [Amend] button is clicked, the selected record will be displayed in editable mode as shown on Screen 13.



Pre-Diabetes Treatment:

Treatment	Year Started
☐ Oral Medications	(YYYY)

Diabetes Treatment:

Treatment	Year Started
☐ Oral Medications	(YYYY)
☐ Insulin	(YYYY)

Hypertension Treatment:

Treatment	Year Started
☐ Oral Medications	(YYYY)

Lipid Disorder Treatment

Treatment	Year Started
☐ Oral Medications	(YYYY)

Clinical Indicators History (Past 12 Months):

Date	Indicators	Value
07-Jul-2021	Systolic BP(mmHg)	120
07-Jul-2021	Diastolic BP(mmHg)	80
10-Jun-2021	Cigarettes smoked per day(Avg)	5

Clinical Indicators:

Date of Visit (DDMMYYYY):*

Blood Pressure (Systolic/Diastolic): /

LDL-C: mg/dL

HbA1c (%):

Weight (kg):
(use 999 if not measurable)

Cigarettes smoked per day (average) ## :

ACT Score (Asthma only):

Serum Creatinine (µmol/L):

Urine ACR (mg/mmol):

Fasting Plasma Glucose (FPG) (mmol/L):

DM - Eye Assessment: ○ Yes ○ No

DM - Foot Assessment: ○ Yes ○ No

DM - Nephropathy Assessment: ○ Yes ○ No

COPD Assessment Test (CAT) score

Influenza Vaccination Assessment (COPD only): ○ Yes ○ No

eGFR (ml/min/1.73m^2):

Urine PCR (mg/mmol):

Oral Glucose Tolerance Test (OGTT) (mmol/L):

** denotes a mandatory field*

For current smokers, smoking cessation advice should be given;
For non- or ex-smoker, please reinforce the benefits of not smoking cigarettes

Applicable to current smokers only

Add Indicators *Click to add clinical indicators (only those performed)*

	Date	Indicators	Value
☐	10-Jun-2021	Cigarettes smoked per day(Avg)	5
☐	07-Jul-2021	Systolic BP(mmHg)	120
☐	07-Jul-2021	Diastolic BP(mmHg)	80

Delete Indicators *Click to delete selected clinical indicators*

Attending Physician Information:

Registration Number (MCR) :* M02437F

Doctor Name:* Teoh Guan Pin

With effect from 1 Apr 2013, all entries for doctor MCR must begin with M

Specialty/Training: Please select if applicable

Healthcare Establishment: HEL0002

Role:*
- ◉ Attending Doctor is the patient's regular primary physician
- ○ The Clinic is the patient's regular primary provider
- ○ None of the Above

Date of Submission: 01-Jul-2021

** denotes a mandatory field*

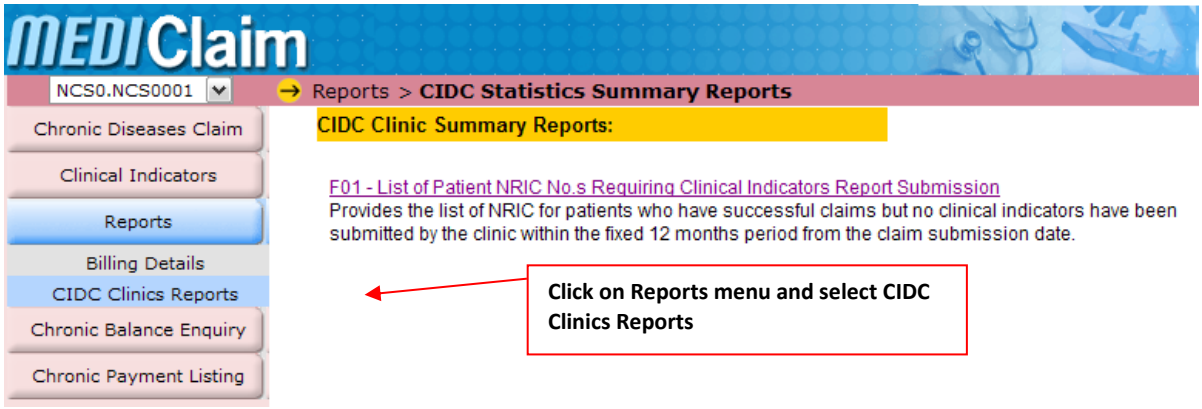
Amend Close

Screen 13: Editable Page of Patient Record

10 CIDC Clinic Reports

10.1 This function provides standard report(s) for use by clinics. One report is currently available and additional reports may be added in future releases.

10.2 To access this function, click on the CIDC Clinic Reports under the Reports menu button. A page displaying all the available reports and their description will be loaded.

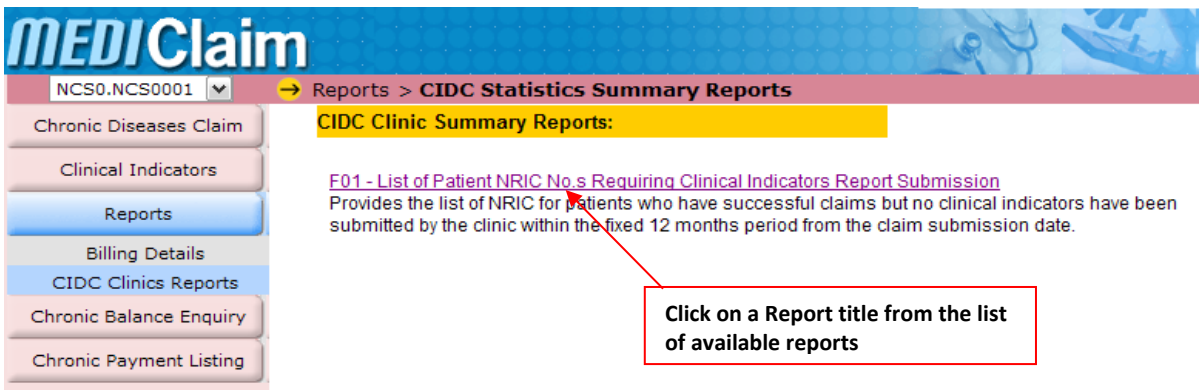


Screen 14: CIDC Clinic Reports

10.3 List of NRICs for patients for whom Clinical Indicators have not been submitted:

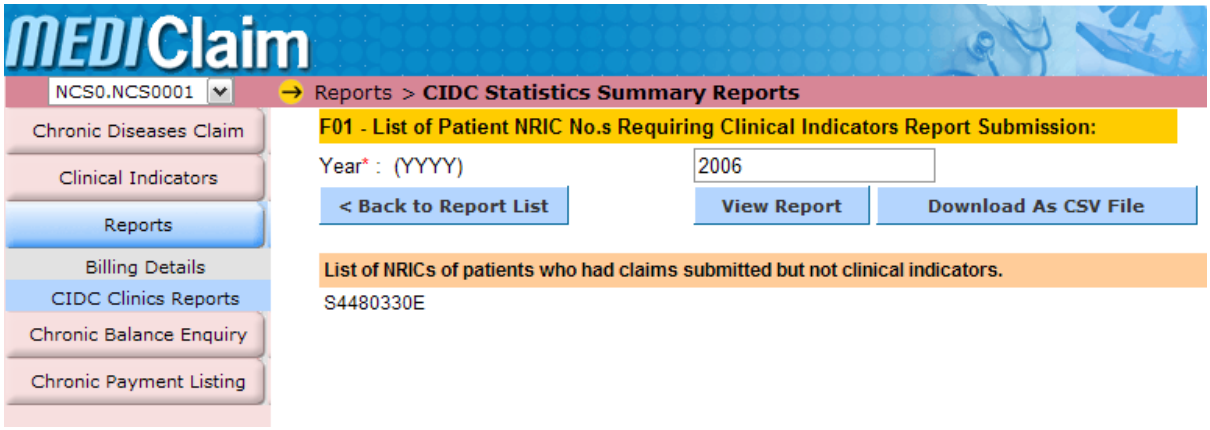
a) This report enables the clinics to have a listing of all the patients' NRICs for whom the clinics had made claims in the specified year but no clinical indicator reports were submitted within a fixed period of 12 months from the claim submission date of each patient. This report is built in to assist doctors and clinics to keep track of the outstanding clinical indicator reports they would require to submit with each claim.

b) Click on the report title from the list of available reports as shown on Screen 15. A report page with a textbox would appear for the user to key in the year of the requested report, as shown below.



Screen 15: Selecting a Report

c) Upon entering a valid year, a list of patient NRIC numbers will be generated. The report generated below shows the record of a patient who had a claim submitted but with no submission of any clinical indicator.

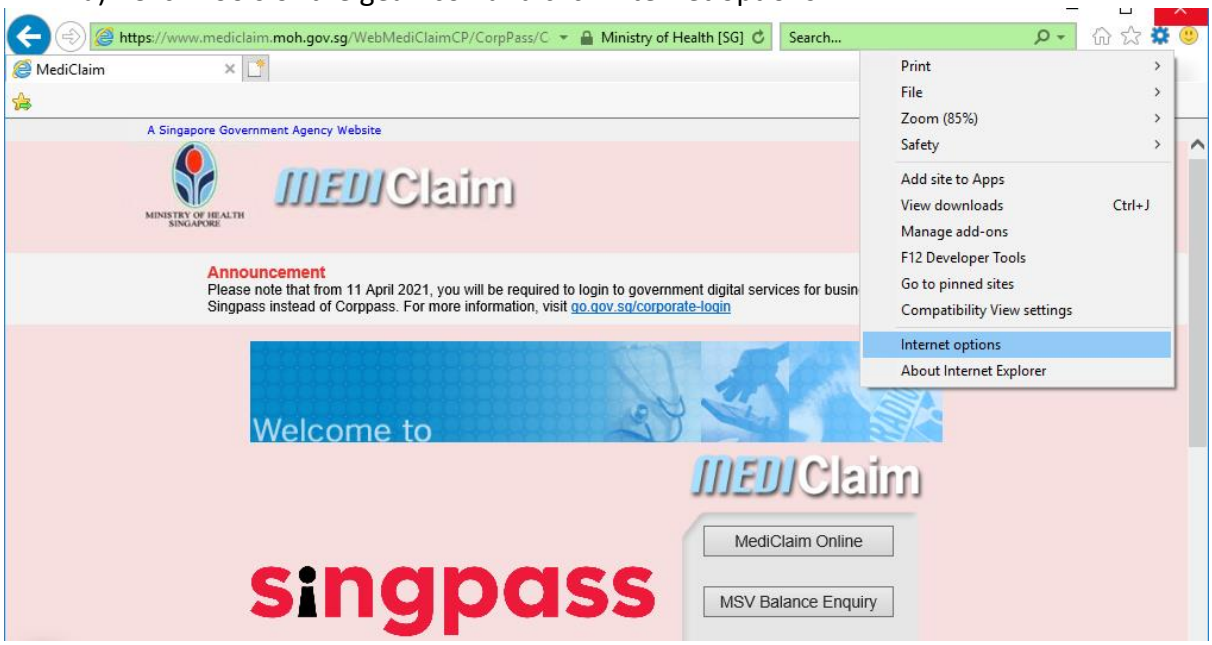


Screen 16: Viewing a Report

11 Troubleshooting

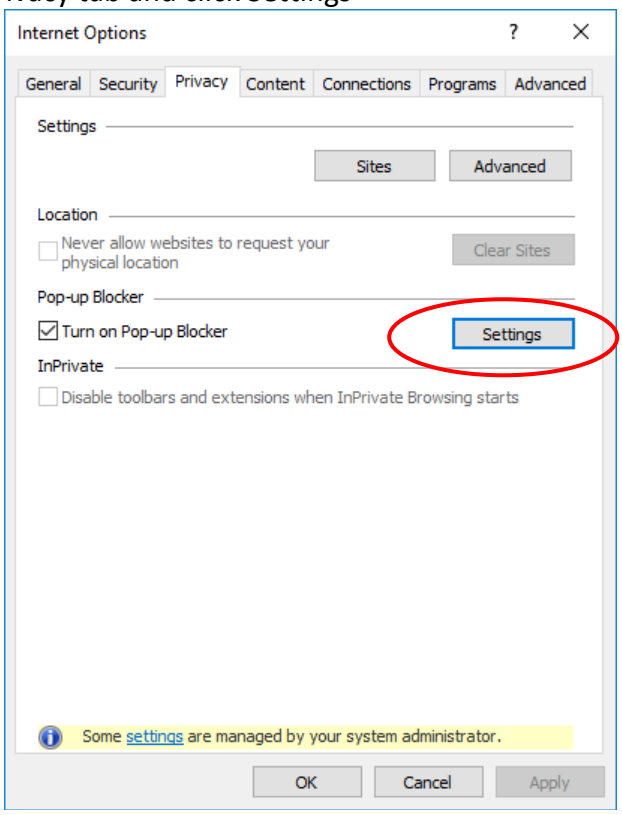
11.1 Enabling of Pop Ups: Certain screens within the application will be displayed as pop-up windows. In order to access the full system functionality, you need to enable pop-up windows for the MediClaim website. To enable this feature, follow the steps below:

a) Click Tools or the gear icon and click Internet options.



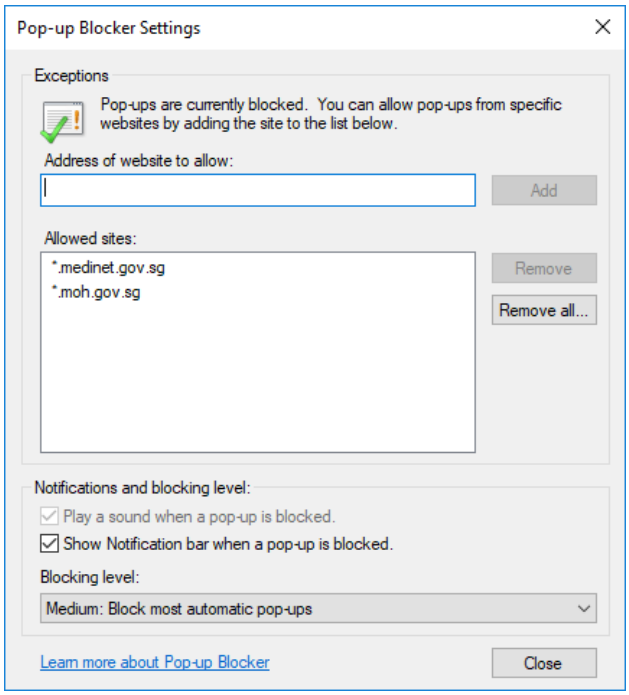
Screen 17: Internet Explorer Menu

b) Click the Privacy tab and click Settings



Screen 18: Internet Options – Privacy Tab

c) Enter "*.medinet.gov.sg" and "*.moh.gov.sg", then click on Add.



Screen 19: Configuring Pop-up Blocker

12 Fall-Back Procedures

12.1 In the event that the submission cannot be done online immediately, you can keep a record of the information and submit it at a later date.

13 Contact Information for Queries Related to Clinical Data Collection and Submission

13.1 For online e-service related technical queries, please e-mail MediClaim Helpdesk at **mediclaim@ncs.com.sg**, or contact **6775 9330** (8.00 am to 7.00pm from Mondays to Fridays with Saturdays, Sundays and Public Holidays excepted).

13.2 For clinical data collection and submission issues related feedback, please email **moh_cds@moh.gov.sg** (preferred method), or contact **6325 1757** (Mon - Fri, excluding public holidays, 8:30 am to 6:00 pm).