

I/204987/2023



NHMHP- NCD02016/3/2019-NCD (12268) -9865  
National Health Mission,  
Directorate of Health Services,  
SDA Complex, Kasumpti  
Himachal Pradesh, Shimla-9

MISSION DIRECTOR (NHM)

22 JUN 2023

Shimla-9 (H.P.)

To

1. All the Chief Medical Officers,  
Himachal Pradesh.
2. The Principals  
Dr. RKGMC Hamirpur, Dr. RPGMC Tanda  
Dr. YSPGMC Nahan, IGMSC Shimla,  
PJLNGMC Chamba and SLBSGMC Mandi  
Himachal Pradesh
3. The Sr. MS/MS,  
All Government Medical Colleges/ZH/RH/DH  
in Himachal Pradesh.

Dated Shimla-171009 the May, 2022

**Subject:** Notification of Standard Treatment Guidelines for Hypertension  
and Diabetes in the State of H.P.

Sir/Madam,

Standard Treatment Guidelines is an important tool for providing the most appropriate treatment, as recommended by the experts, in various medical conditions. Accordingly, the state of Himachal Pradesh has notified Standard Treatment Guidelines for Hypertension and Diabetes which are attached as Annexure I & II.

Please ensure that the STG are adhered to strictly by all the Medical Officers under your control. These guidelines also need to be adhered to by the Medical Officers providing tele-consultation services through hubs established in Medical Colleges.

The drugs in the STG are part of the State's EDL and it may be ensured that they are made available in all the Health Institutions. At the HWS-HSC level the drugs may be made available based upon the actually number of patients on treatment, to be disbursed by CHOs on advise of MO's.

I am sure that these systematically developed STG will help the Medical Officers to choose the best treatment option for Hypertension and Diabetes and would prove to be another milestone in the direction of promotion of Ration Use of Drugs.

Yours Sincerely,

-sd-

Secretary (Health)

7/2023

MISSION DIRECTOR (NHM)

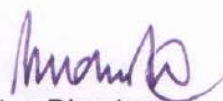
22 JUN 2023

Govt. Himachal Pradesh,  
Shimla-9Endst. No. As above  
Copy to:

Shimla-9 (H.P.)

Dated Shimla-9. The

1. The Additional Secretary-cum-Mission Director, Ministry of H&WF, Govt. of India for information please.
2. The Director General, ICMR Chennai for information please.
3. The Executive Director, National Health Systems Resource Center (NHSRC), GOI for information please.
4. The Director of Health Services HP for information please.
5. The Director of Medical Education HP for information please
6. The Dean, AIIMS Bilaspur for information and necessary action please.
7. All the District Commissioners, Himachal Pradesh for information please



Mission Director,  
National Health Mission  
Shimla-9



# Hypertension Treatment Protocol

Measure blood pressure of all adults above 18 years



**High BP: SBP  $\geq$  140 or DBP  $\geq$  90 mmHg\***

Check for compliance at each visit before titration of dose or addition of drugs.

Step

1

**If BP is high:**

**Prescribe Amlodipine 5mg**

Step

2

**After 30 days measure BP again. If still high:**

**Add Telmisartan 40mg**

Step

3

**After 30 days measure BP again. If still high:**

**Add Chlorthalidone 6.25mg\*\***

Step

4

**After 30 days measure BP again. If still high:**

**Check if the patient has been taking medications regularly and correctly. If yes, refer to a specialist.**

**Pregnant women and women who may become pregnant**

**▲ DO NOT** give Telmisartan or Chlorthalidone.

- Statins, ACE inhibitors, angiotensin receptor blockers (ARBs), and thiazide/thiazide-like diuretics should not be given to pregnant women or to women of childbearing age not on effective contraception.
- Calcium channel blocker (CCB) can be used. If not controlled with intensification dose, refer to a specialist.

**Diabetic patients**

- Treat diabetes according to protocol.
- Aim for a BP target of  $<130/80$  mmHg.
- First drug of choice should be Telmisartan 40 mg in place of Amlodipine 5mg

**H/O Heart attack, Stroke, PVD, CVD risk or CKD**

- Ensure patient is on treatment by specialist
- Ensure compliance & availability of drugs

**Refer to specialist**

- In case of breathlessness and or Angina
- Raised Serum Creatinine
- Atrial Fibrillation

**Mandatory Investigations at first time**

- Renal Function Tests
- RBS
- Lipid Profile

Note: Fixed drug combination, if available in health institute, may be prescribed to improve compliance.

## Lifestyle advice for all patients



Avoid tobacco and alcohol



Walking 30 to 40 min. /day



Reduce salt, under 1 tsp (5g) /day



Eat less fried foods



Reduce Weight Target: Ht (cm) -100

**Eat 5 servings of fruits and vegetables per day.**

**Avoid papads, chips, chutneys, dips and pickles.**

**Use healthy oils: Eg. Sunflower, Mustard or Groundnut.**

**Limit consumption of foods containing high amounts of saturated fats.**

**Reduce fat intake by changing how you cook:**

- Remove the fatty part of meat -Use vegetable oil
- Boil, steam, or bake instead of frying
- Limit reuse of oil for frying

**Avoid processed foods containing trans fats.**

**Restrict sugar intake in all forms.**

\* If SBP = 180 or DBP = 110, refer patient to a specialist after starting treatment

If SBP 160-179 or DBP 100-109, start treatment on the same day.

If SBP 140-159 or DBP 90-99, check on a different day and if still elevated, start treatment.

\*\* Hydrochlorothiazide can be used if Chlorthalidone is not available (12.5 mg starting dose).



# Diabetes Treatment Protocol

Measure blood glucose for all adults over 18 years



Parameter	Pre-Diabetes	Criteria for Diagnosis (WHO/ADA 2020 Guidelines)	Treatment Targets (ADA 2020 Guidelines)
Fasting Blood Glucose (FBG)	100 – 125 mg/dL	≥ 126 mg/dL	80-130 mg/dL
Post-Prandial Blood Glucose (PPBG)	140 – 199 mg/dL	≥ 200 mg/dL	< 180 mg/dL
Random Blood Glucose (RBG)	140 – 199 mg/dL	≥ 200 mg/dL twice (confirm again on different day)	< 180 mg/dL
Glycated Hemoglobin (HbA1c)	5.7 – 6.4%	≥ 6.5%	< 7%
Actions	Counsel on LSM and review after 3 months	Counsel on LSM and initiate treatment	

Step  
1

**If Blood Glucose (BG) is high**  
Prescribe Metformin SR 500 mg HS  
(at night)

Step  
2

**Review after 1 month and if BG above target**  
Increase to Metformin SR 1000 mg OD<sup>1</sup>

Step  
3

**Review after 1 month and if BG above target**  
Increase to Metformin SR 1000 mg BD

Step  
4

**Review after 1 month and if BG above target**  
Add Glimeperide 1 mg OD<sup>2,3</sup> with  
Metformin SR 1000 mg BD

Step  
5

**Review after 15 days and if BG above target**  
Increase to Glimeperide 2 mg OD  
with Metformin SR 1000 mg BD

Step  
6

**Review after 15 days and if BG above target**  
Refer to specialist

Note: Fixed drug combination, if available in health institute, may be prescribed to improve compliance.

Note: Insulin is never started at PHC but if patient is already taking then it can be continued

## Important considerations

- If FBG ≥ 200 mg/dL or PPBG ≥ 300 mg/dL or HbA1c ≥ 9%, initiate treatment and review in a week for dual therapy (Metformin + Glimeperide)
- Repeat FBG & PPBG after one week and if ≥ 200mg/dl and 300 mg/dl respectively, refer to specialist.
- Refer direct to specialist if
  - BG ≥ 400 mg/dL or HbA1c ≥ 11%
  - Raised Serum Creatinine, Dyslipidemia
  - Uncontrolled infection
  - Co-morbidities like CAD,CKD, Stroke, HTN, PVD, foot ulcer or urine ketones
  - Symptoms of breathlessness and or Angina
- If patient is pregnant, refer directly to obstetrician
- Review medication adherence prior to increasing step
- When starting Glimeperide:
  - Monitor for hypoglycemic symptoms at all visits and stop glimeperide if present
  - Provide counseling to watch for hypoglycemic symptoms: sweating, confusion, palpitations, dizziness and take sugar orally. Advise not to take Glimeperide on fasting days/skipping meals
- Diabetic retinopathy: screen retina annually, refer if any eye symptoms or positive exam
- Diabetic neuropathy: examine feet annually, refer if abnormal exam
- Diabetic nephropathy: screen urine protein and serum creatinine annually, refer if proteinuria++ and Cr ≥ 1.5
- Provide lifestyle advice for all patients

## Footnotes

1. Once daily (OD), metformin SR tablets are recommended. If these are unavailable, the same total dosage may be delivered as twice daily IR tablets. For example, at protocol Step 2, 1000 mg daily dose given as metformin 500 mg BD.
2. Glimeperide may be substituted with Gliclazide
3. Glimeperide to be started in morning 15- 20 min before meals.

Protocol step	Glimeperide	Gliclazide
Step 4	1 mg OD	40 mg BD
Step 5	2 mg OD	80 mg BD

\*BG – Blood Glucose; SR – Sustained Release; OD – Once Daily;  
BD – Twice Daily; IR – Immediate Release; LSM – Life Style Modification;

