



DEPARTMENT OF HEALTH

Hypertension Guideline



Third Edition



Professional Development & Quality Assurance
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1. Introduction

Hypertension is common and is an important cause of strokes, coronary heart disease and premature death¹. In the 1995 – 1996 Hong Kong Cardiovascular Risk Factor Prevalence Study², about 1 in 10 men and 1 in 9 women had definite hypertension (defined as systolic BP \geq 160 and/or diastolic BP \geq 95 mmHg or on treatment for hypertension); about 1 in 12 men and 1 in 16 women had borderline hypertension (defined as systolic BP 140 – 159 and/or diastolic BP 90 – 94 mmHg). 6% of men and 8% of women were on treatment for hypertension overall. Among individuals with definite hypertension, 66% of men and 71% of women were on treatment. Conversely 34% of men and 29% of these women were untreated.

After the implementation of the second edition of the hypertension guideline in 2004²³, newer guidelines were published. There was a major change in drug use supported by new evidence. Thus, the Clinical Audit and Guideline Working Group in Professional Development and Quality Assurance (PDQA) decided to update the part on drug treatment for hypertension.

2. Definition and Classification of Hypertension

In the Seventh Report of the Joint National Committee (JNC 7) on Prevention, Detection, Evaluation and treatment of High Blood Pressure, the classification of blood pressure for adults ages 18 and older is based on the average of two or more properly measured, seated BP readings on each of two or more office visits.

JNC 7 2003 classification

Category	SBPmmHg	DBPmmHg
Normal	<120	and < 80
Prehypertension	120-139	or 80-89
Stage 1 hypertension	140-159	or 90-99
Stage 2 hypertension	\geq 160	or \geq 100

A new category designated **prehypertension** (systolic BP of 120-139mmHg or a diastolic BP of 80-89mmHg) has been added. Adults with prehypertension are at twice the risk to develop hypertension as those with lower values⁸.

3. Initial Assessment³

3.1 Aims

- i. To assess lifestyle and identify other cardiovascular risk factors or concomitant disorders that may affect prognosis and guide treatment (Table 1)
- ii. To reveal identifiable causes of high BP (Table 2)
- iii. To assess the presence or absence of target organ damage and CVD (Table 3)

Table 1 Cardiovascular risk factors

- ◆ Hypertension
- ◆ Cigarette smoking
- ◆ Obesity
- ◆ Physical inactivity
- ◆ Dyslipidemia
- ◆ Diabetes mellitus
- ◆ Microalbuminuria or estimated GFR<60ml/min
- ◆ Age (older than 55 for men, 65 for women)
- ◆ Family history of premature cardiovascular disease (men under age 55 or women under age 65)

Table 2 Identifiable causes of hypertension

- ◆ Sleep apnea
- ◆ Drug-induced
- ◆ Chronic kidney disease
- ◆ Primary aldosteronism
- ◆ Renovascular disease
- ◆ Chronic steroid therapy and Cushing's syndrome
- ◆ Pheochromocytoma
- ◆ Coarctation of the aorta
- ◆ Thyroid or parathyroid disease

Table 3 Target Organ Damage

- ◆ Heart
 - Left ventricular hypertrophy
 - Angina or prior myocardial infarction
 - Prior coronary revascularization
 - Heart failure
- ◆ Brain
 - Stroke or transient ischemic attack
- ◆ Chronic kidney disease
- ◆ Peripheral arterial disease
- ◆ Retinopathy

3.2 Physical Examination

- i. Body mass index (BMI).
- ii. Cardiovascular system: peripheral pulses, carotid bruit, apex beat, heart murmurs, oedema/heart failure.
- iii. Abdominal system: abdominal and femoral bruits, enlarged kidney, masses and abnormal aortic pulsation.
- iv. Optic fundi.
- v. Neurological examination to exclude evidence of cerebral vascular damage.
- vii. Palpation of thyroid gland.

3.3 Investigations

- i. Urinalysis for blood, protein and glucose.
- ii. Blood for serum electrolytes, creatinine, fasting glucose, fasting lipid profile
- iii. Electrocardiogram (ECG).
- iv. Other tests if indicated.

3.4 Initial Assessment Form

This form should be completed within 6 months for a client with newly diagnosed hypertension. Staff responsibility for the different sections is allocated by the individual clinics at their own discretion. Abnormalities found should be given in more details e.g. degree of retinopathy or abnormality of ECG.

Hypertension-Initial assessment Completion date: _____ ID No. : _____ Input: ()

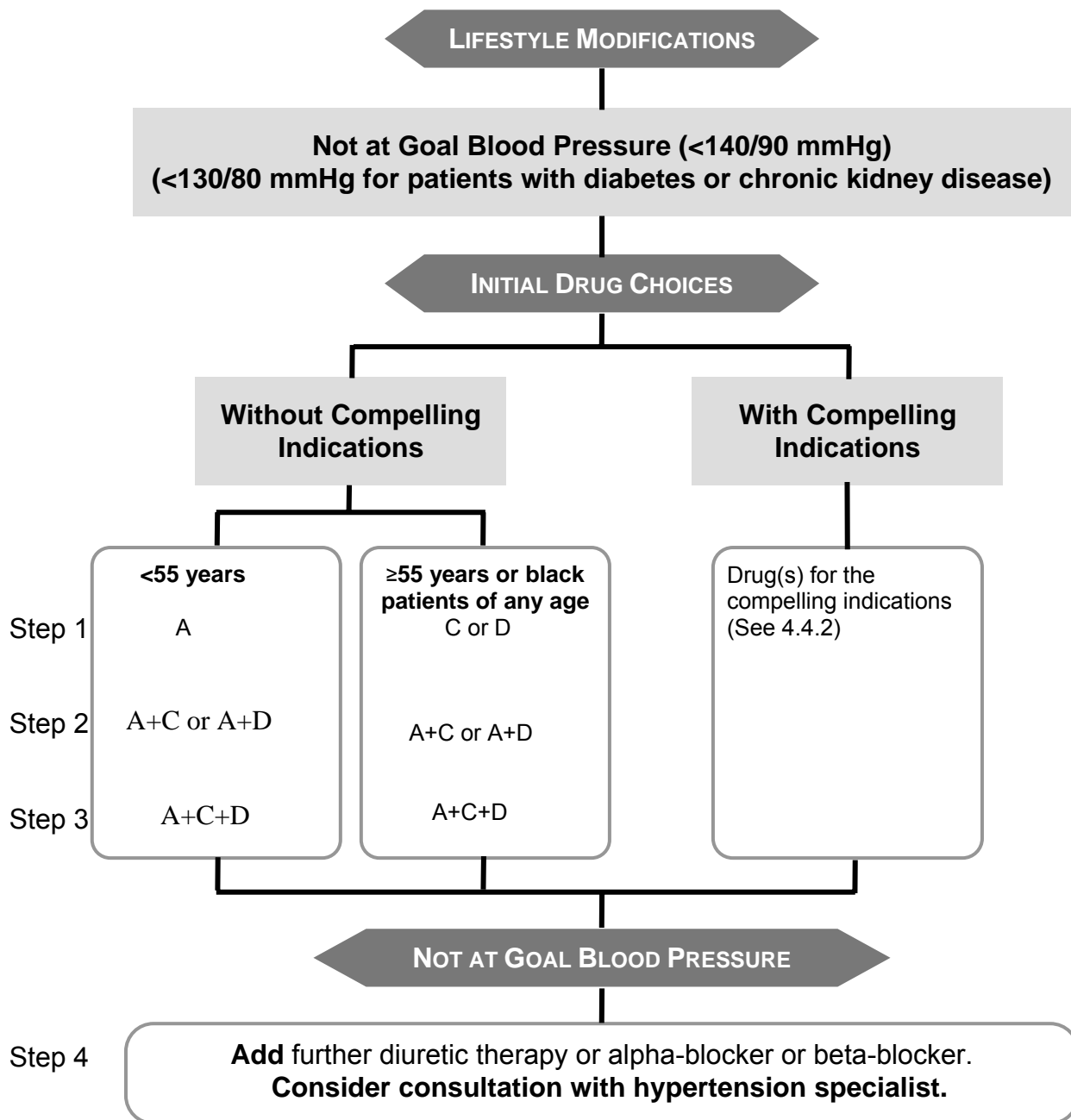
Health education :		✓ = done	
() Optimal weight	() Antismoking	() Nature of HT and risk factors	
() Advice on alcohol	() Exercise	() Low salt diet	
Physical examinations :	Date :	✓ = present X = absent	
BMI :	BP : /	N = normal A = abnormal	
CVS : () Heart failure	Abdomen: () Enlarged kidney		
() LVH	() Abdominal bruit		
() Heart murmur	Others:		
() Carotid bruit	Retinopathy () R () L		
() Cerebrovascular damage	Peripheral pulses () R () L		
Investigations :	Date :		
Na / K (/)	Cholesterol (total/LDL/HDL) (/ /)	ECG Normal/Abnormal	
Creatinine ()	Urine protein (-/trace/+/++/+++)	_____	
FBS ()	Other ()		
Risk Factors :		✓ = present X = absent	
() Smoker	() Insuff. Exercise	() Obesity	() FH premature CAD
() Excess alcohol	() Raised cholesterol	() DM	
Complications :		✓ = present X = absent	
() LVH	() Heart failure	() PVD	() Renal disease
() Angina	() Retinopathy	() Stroke	

4. Management of Hypertension^{3,4}

4.1 Goal of Therapy

Simple hypertensive subjects	<140/90mmHg
Patients with diabetes mellitus or chronic renal disease	<130/80mmHg

4.2 Flow Chart of Management of Hypertension



Abbreviations:

DBP= diastolic blood pressure

SBP= systolic blood pressure.

A=angiotensin converting enzyme inhibitor (consider angiotensin-II receptor antagonist if ACE inhibitor intolerant)

B=beta-blocker

C=calcium channel blocker

D=thiazide-type diuretic

Black patients are those of African or Caribbean descent, and not mixed-race, Asian or Chinese patients

4.3 Management Protocol of Lifestyle Measures³

Adoption of healthy lifestyles by all persons is critical for the prevention of high BP and is an indispensable part of the management of those with hypertension. Lifestyle modifications can reduce BP, enhance antihypertensive drug efficacy, and decrease cardiovascular risk.

*Lifestyle modifications to manage hypertension * †*

MODIFICATION	RECOMMENDATION	APPROXIMATE SBP REDUCTION (RANGE)
Weight reduction	Maintain normal body weight (body mass index 18.5-22.9 kg/m ²)	5-20 mmHg/10kg Weight loss
Adopt DASH eating plan ²⁵	Consume diet rich in fruits, vegetables, and low fat dairy products with a reduced content of saturated and total fat.	8-14 mmHg
Dietary sodium reduction	Reduce dietary sodium intake to no more than 100 mmol per day (2.4 g sodium or 6 g sodium chloride).	2-8 mmHg
Physical activity	Engage in regular aerobic physical activity such as brisk walking (at least 30 min per day, most days of the week).	4-9 mmHg
Moderation of alcohol consumption	Limit consumption to no more than 2 drinks (1 oz or 30 mL ethanol; e.g., 24 oz beer, 10 oz wine, or 3 oz or 80-proof whiskey) per day in most men and to no more than 1 drink per day in women and lighter weight persons.	2-4 mmHg

DASH= Dietary Approaches to Stop Hypertension.

* For overall cardiovascular risk reduction, stop smoking¹¹

† The effects of these modifications are dose and time dependent and could be greater for some individuals.

4.4 Drug Treatment for Hypertension³

4.4.1 Principles in the use of anti-hypertensive drugs:

- Calcium-channel blockers or thiazide-type diuretics are the most likely drugs to confer benefit as first-line treatment for most patients aged 55 or older. (Grade A* recommendation)

- People younger than 55 years, evidence suggests that initial therapy with an ACE inhibitor may be better than initial therapy with a calcium-channel blocker or a thiazide-type diuretic. (Grade C* recommendation)

- Beta-blockers
 - In head-to-head trials, beta-blockers were usually less effective than a comparator drug at reducing major cardiovascular events, particularly stroke. Beta-blockers were also less effective than an ACE inhibitor or a calcium-channel blocker at reducing risk of diabetes, particularly in patients taking a beta-blocker and a thiazide-type diuretics. Thus, beta-blockers are no longer preferred as a routine initial therapy for hypertension.
 - a. But consider them for younger people, particularly:
 - women of childbearing potential
 - patients with evidence of increased sympathetic drive
 - patients with intolerance of or contraindications to ACE inhibitors and angiotensin-II receptor antagonists. (Grade B* recommendation)
 - b. If a patient taking a beta-blocker needs a second drug, add a calcium-channel blocker rather than a thiazide-type diuretic, to reduce the patient's risk of developing diabetes. (Grade C* recommendation)
 - c. If a patient's blood pressure is not controlled by a regimen that includes a beta-blocker (that is, it is still above 140/90mmHg), change their treatment by following the flow chart above. (Grade C* recommendation)
 - d. If a patient's blood pressure is well controlled (that is, 140/90 mmHg or less) by a regimen that includes a beta-blocker, consider long-term management at their routine review. There is no absolute need to replace the beta-blocker in this case. (Grade C* recommendation)
 - f. When withdrawing a beta-blocker, step down the dose gradually. Beta-blockers should not usually be withdrawn if a patient has a compelling indication for being treated with one, such as symptomatic angina or a previous myocardial infarction. (Grade C* recommendation)

- Adding an ACE inhibitor to a calcium-channel blocker or a diuretic (or vice versa) is a logical combination, and had been commonly done in trials. (Grade B* recommendation)

4.4.2 Clinical trial and guideline basis for compelling indications for individual drug classes

Compelling Indication *	Recommended Drugs						Clinical Trial Basis †
	Diuretic	BB	ACEI	ARB	CCB	Aldomet	
Heart failure	ACC/AHA Heart Failure Guideline, MERIT-HF COPERNICUS, CIBIS SOLVD, AIRE, TRACE, ValHEFT, RALES
Postmyocardial infarction		.	.			.	ACC/AHA Post-MI Guideline, BHAT, SAVE, Capricorn, EPHEBUS
High coronary disease risk		ALLHAT, HOPE, ANBP2, LIFE, CONVINCe
Diabetes		NKF-ADA Guideline, UKPDS, ALLHAT
Chronic kidney disease			.	.			NKF Guideline, Captopril Trial, RENAAL, IDNT, REIN, AASK
Recurrent stroke prevention	.		.				PROGRESS

* Compelling indications antihypertensive drugs based on benefits from outcome studies or existing clinical guidelines, the compelling indication is managed in parallel with the BP.

† Conditions for which clinical trials demonstrate benefit of a specific classes of antihypertensive drugs.

5. Referral

5.1 Accident & Emergency Department Referral⁹

- i. Malignant Hypertension
 - Diastolic Pressure > 130 mmHg
 - Proteinuria
 - Papilloedema
 - Acute Pulmonary Oedema
 - Encephalopathy
- ii. Accelerated Hypertension – Diastolic pressure > 130 mmHg + retinal haemorrhage.
- iii. Persistent BP > 220/120 mmHg despite appropriate resting or drug treatment (e.g. adalat retard 20 mg stat and review 1-2 hours afterwards) (sublingual Adalat treatment is not recommended).
- iv. Pregnancy –
 - (a) Hypertension (BP ≥ 140/90 mmHg) & > 20 weeks gestation; or
 - (b) Signs and symptoms of pre-eclampsia (e.g. headache, proteinuria, oedema).

5.2 Hospital Clinic Referral⁹

- i. Suspected secondary hypertension.
- ii. Patients aged 30 or below.
- iii. Hypertension in pregnancy less than 20 weeks gestation without signs and symptoms of pre-eclampsia requires urgent obstetric referral.
- iv. Patients with progressive Target Organ Damage, not manageable at out-patient setting, (e.g. rapidly deteriorating renal function, intractable heart failure).
- v. Therapeutic problems (e.g. treatment resistance, multiple drug intolerance, multiple drug contraindication).

Appendix I Equipment for Recording Blood Pressure

1.1 Sphygmomanometer

- i. Mercury sphygmomanometer – the most reliable type of instrument for recording blood pressure.
- ii. Electronic devices – can also be used, but periodic calibration should be done to ensure its accuracy.
- iii. Electronic devices that record the pressure in the fingers or the wrist should be avoided.

1.2 Checking of mercury sphygmomanometer

- i. The column of the manometer is in the intended position (vertical).
- ii. Mercury level is at zero when cuff is deflated.
- iii. No blockage of the air venting system at the top of manometer.
- iv. A sluggish response or bouncing of the mercury column during inflation and deflation usually indicates a blocked vent.
- v. No leakage from rubber tubing, hand pump and control valve testing of control valve:
 - a. roll a cloth cuff into its own tail.
 - b. pump up to 200 mmHg and wait for 10 seconds.
 - c. mercury should fall < 2 mmHg in 10 seconds.
 - d. if fall > 2 mmHg, clamp circuit in sections to locate leak or replace the control valve.

1.3 Checking of electronic devices

- i. Routine checks - compare the reading with mercury sphygmomanometer.
- ii. Periodic calibration is needed.
- iii. If consistent discrepancies of more than 5 mmHg persist, refer to service manual or send the monitor to a trained technician or recognised unit (EMSD) for calibration.

2. Blood pressure recording techniques

- i. The client should be advised to be seated for at least 5 minutes before the recording is taken.
- ii. Arrange client in sitting position.
- iii. Remove any constrictive clothing from the arm.

- iv. Support client's arm with the antecubital fossa at heart level.
- v. Use an appropriate sized blood pressure cuff. The cuff should be wide enough to cover two thirds of the upper arm and its length should be long enough to encircle the whole arm.
- vi. Advise client to relax and not to talk during blood pressure recording.
- vii. Check blood pressure initially by palpation prior to auscultation.
 - a. palpate the radial artery with your fingertips.
 - b. inflate the cuff while simultaneously palpating the artery.
 - c. note the point on the manometer at which the radial artery pulsation is no longer palpable. (This is the estimated systolic pressure).
 - d. deflate the cuff.
- viii. Wait 30-60 seconds before reinflating.
- ix. Place the stethoscope gently over the brachial artery and steadily inflate the cuff to the level of 30 mmHg above the estimated level of systolic pressure checked by palpation.
- x. Deflate the blood pressure cuff by 2 mmHg per second.
- xi. Record the first Korotkoff sound (the regular appearance of sound) as the systolic pressure.
- xii. Record the last Korotkoff sound (the disappearance of sound) as the diastolic pressure. If sounds persist to zero, or close to zero, use the muffling sounds (IV Korotkoff sound) to indicate diastolic pressure.
- xiii. Allow 30 seconds between blood pressure recordings.

3. Precautions about blood pressure recording

3.1 Recorder's precautions

- i. Read at eye level.
- ii. Avoid digital preference. The blood pressure reading should be corrected to the nearest 2 mmHg.
- iii. Choose the correct cuff size (see 2 v).
- iv. Consistent use of the 4th or 5th Korotkoff sounds for recording (see 2 xii).
- v. Correct arm positioning
 - a. blood pressure changes 8-10 mmHg for every 10 cm the antecubital fossa is above or below the heart level.
 - b. arm well supported (diastolic pressure may be raised by as much as 10%).
- vi. Deflate the cuff not too rapidly or too slowly (see 2 x).
- vii. Avoid venous congestion due to repeated measurement.

-
- viii. Adopt a unify standard in recording routinely to avoid variation among recorders.

3.2 Client's factors

- i. Emotional extremes.
- ii. Physical exertion: blood pressure will increase during exertion.
- iii. After exercise, decrease in blood pressure may persist for more than one hour.
- iv. After meals: blood pressure may decrease following meals, recording is not recommended within half an hour of eating.
- v. Smoking and caffeine: should be avoided within 1-2 hours prior to BP recording.
- vi. Alcohol.
- vii. Temperature extremes.
- viii. Bladder and bowel distension.
- ix. Pain.

Appendix II Follow up

1. **Seen at intervals not exceeding 6-monthly if BP is at goal & stable^{3,4,5,6,7}**
2. **Follow-up assessment (not exceeding 6-monthly)**
 - Blood pressure^{3, 4, 6, 7, 8}
 - Body weight^{5, 9}
 - Drug compliance^{6, 9}
 - Side effect of drugs*^{5, 6, 9}
 - Non-pharmacological: diet, smoking, obesity, exercise^{5, 6, 9}
3. **At least annually**
 - Urine protein^{5, 10}
4. **When indicated**
 - Creatinine#*^{9, 10}
 - FBS, lipids#^{9, 10}
 - ECG#^{9, 10}

*Include investigation: electrolytes if diuretics used, RFT if ACEI used.

#WHO⁶/BHS⁵/EL¹⁰ do not mention the significance of checking these parameters regularly.

For those patients newly start ACEI, we suggest to check renal function 4-6 weeks after starting.

Appendix III Ambulatory BP monitoring for white coat hypertension¹⁵⁻²²

1. Introduction

- (1) White coat hypertension is common. The prevalence is about 20% among those with persistent elevation of clinic blood pressure. The incidence of target organ damage or cardiovascular morbidity and mortality is significantly less than comparing white coat hypertension with established hypertension.
- (2) 24-hour ambulatory blood pressure monitoring is the most frequent tool to measure the white coat effects. It is recommended by the British hypertension society guidelines and the Canadian hypertension society guidelines. Definition of white coat hypertension is an elevated daytime clinic blood pressure to $\geq 140/90$ mmHg; while the daytime ambulatory blood pressure remains normal, i.e. $<135/85$ mmHg.

2. Aims

To identify patients of suspected white coat hypertension by using validated ambulatory BP monitors. (TM-2420 model; validated by both US Association for the Advancement of Medical Instrumentation and British Hypertension Society.)

3. Procedures

- (1) Selection of subjects
 - i. Clinic BP $\geq 140/90$ on repeated measurements while home BP (BP outside clinic) $< 140/90$.
 - ii. Not on anti-hypertensive treatment.
 - iii. Must not be on NSAIDs, sympathomimetics, liquorice at time of monitoring.
 - iv. For those who have acute intercurrent illnesses, acute stressful events and unstable psychiatric conditions, ABPM should be delayed.
 - v. Hormones, steroids, anxiolytics and anti-depressants may all affect BP. If initiation of those drugs is deemed necessary, the subjects should be excluded. **Stable patients on long-term treatment of those medicines should NOT be excluded.**
 - vi. Subjects with target organ damage should be excluded.

- (2) Prior arrangement should be made with doctor(s) responsible for ambulatory BP monitoring.
- (3) 4 monitors were located in Ngau Tau Kok Family Medicine Centre and the three Families Clinics. The explanation, set up and removal of monitor will be performed there.
- (4) Interpretation of the results will be done by the Ambulatory BP team.
- (5) Results will be mailed back to referred clinic within 2 weeks.

Appendix IV Home/self BP monitoring²⁷

There is an increasing use of home or self BP measurement. Some of the monitors used are inaccurate and many have not been formally validated. We strongly recommend the proper use of accurate, validated and well-maintained monitors, with an appropriate cuff size. Wrist monitors, in most instances, are not as accurate as upper arm devices and are not recommended. Measurements should be made under standardised conditions. The potential advantages of home monitoring include: the availability of multiple recordings throughout the waking period taken over many days, which may reduce white coat effect and misinterpretation of measurement variability. Importantly, home BP measurement also involves the patient more closely in the management of their own BP. Values from home measurements tend to be lower than clinic levels. Consequently, thresholds and targets of treatment based on this technique should probably be adjusted downwards (eg by 10/5mmHg), although evidence for true equivalence is lacking and will be variable. The disadvantages of this technique include reporting bias, and unsupervised alteration of medication. Newer BP monitors offer the advantages of built-in printers or internally storing all BP measurements, which can be subsequently downloaded via a telephone link to the physician. There is no uniform consensus about the frequency and timing of measurements, or about what levels should be regarded as abnormal, but patients with home BP levels of SBP <130mmHg and DBP <85mmHg can probably be regarded as having BP levels within the normal range. It has been suggested that initial assessment or the assessment of treatment effects should be for a 7-day period, with recordings performed in the morning and evening, and excluding values for the first 24 h. The average of at least these 12 readings is then taken as the home BP level. The potential advantages of home BP monitoring notwithstanding, there is to date, little or no evidence of these recordings predicting CVD risk or outcomes more effectively than clinic readings.

Appendix V Levels of evidence⁴

Guideline recommendation and evidence grading (GREG) scheme for assessing evidence and writing recommendations

EVIDENCE	
Evidence statements provide information about disease, diagnosis and treatment, and are used to support recommendations. Each evidence statement is graded by scoring the study design and applying quality corrections.	
Design	Design scores
Treatment	
Randomised controlled trial	1
Non-randomised controlled study	2
Uncontrolled study	3
Diagnosis	
Blinded cohort study ^a	1
Unblinded cohort study	2
Other design	3
Prognosis	
Incident cohort study ^b	1
Other cohort study	2
Descriptive data	
Population data	1
Representative sample	2
Convenience sample	3
Quality corrections	
Flawed design, conduct or analysis ^c	+1
Imprecise findings ^d	+1
Lack of consistency or independence ^e	+1
Inadequate relevance ^f	+1
Very strong association ^g	-1
Evidence grade	Score
I: High	≤ 1
II: Intermediate	2
III: Low	≥ 3
^a Blinding refers to independent interpretation of a test and reference standard. ^b An incident cohort is identified and followed in time from a defined point in the progress of disease or care. ^c Important flaws may be judged to occur when adequate standards of research are not followed or are unreported in published findings. Potential examples include failure to analyse by intention-to-treat, over-interpretation of secondary analyses, failure to adjust for potential confounding in non-randomised designs. For diagnostic studies this includes the need for an adequate reference standard and to apply different tests in an adequately short timescale. ^d Sparse data (too few events or patients) are the most common reason for imprecision. A confidence interval including both no effect and a clinically important effect is an example of an imprecise finding. ^e Consistency in design: involves methods, patients, outcome measures; and findings: involves homogeneity of summary estimates. Independence refers to the availability of research from at least two independent sources. Evidence of publication bias also denotes lack of consistency. ^f Adequate relevance requires use in studies of a relevant patient-oriented health outcome or a strongly linked surrogate endpoint; and a sufficiently representative and relevant patient group or mix. ^g In comparative designs a very strong association can raise the quality score.	

Recommendations		
Recommendations provide guidance about appropriate care. Ideally, these should be based on clear evidence: a robust understanding of the benefits, tolerability, harms and costs of alternative patterns of care. They also need to be feasible in the healthcare setting addressed. There are three categories, and each recommendation may be positive or negative, conditional or unconditional reflecting current evidence and the understanding of the Guideline Development Group.		
A*	Recommendation	There is robust evidence to recommend a pattern of care.
B*	Provisional recommendation	On balance of evidence, a pattern of care is recommended with caution.
C*	Consensus opinion	Evidence being inadequate, a pattern of care is recommended by consensus.

Appendix VI Classification of obesity (WHO IOTF 2000)²⁶

Classification	BMI (kg/m²)	Risk of co-morbidities
<i>Underweight</i>	< 18.5	<i>Low (but increased risk of other clinical problems)</i>
<i>Normal range</i>	18.5 – 22.9	<i>Average</i>
<i>Overweight:</i>	≥ 23	
<i>Pre-obese</i>	23 – 24.9	<i>Increased</i>
<i>Obese I</i>	25 – 29.9	<i>Moderate</i>
<i>Obese II</i>	≥ 30	<i>Severe</i>

After consideration of the WHO classification and the Asia-Pacific perspective, it's our group consensus to adopt the above in the protocol.

Appendix VII

Clinic available anti-hypertensive drug list and cost

Class	Drug (Trade name)	Cost HKD			
Thiazide diuretics	Indapamide (Natrlix)	0.065			
Loop diuretics	Frusemide (Lasix) 20mg	0.05			
Potassium sparing diuretics	Moduretic	0.22			
	Dyazide	0.30			
Aldosterone receptor blockers	Spironolactone (Aldactone)	0.261			
Beta-blockers	Atenolol (Tenormin)	50mg	0.089	100mg	0.143
	Metoprolol (Betaloc)	50mg	0.06	100mg	0.1
	Propranolol (Inderal)	10mg	0.024	40mg	0.037
ACE inhibitors	Captopril (Capoten)	25mg	0.224		
	Enalapril (Renitec)	5mg	0.4	10mg	0.5
		20mg	0.8		
	Lisinopril (Zestril)	5mg	0.36	10mg	0.48
Perindopril (Acertil)	4mg	0.277			
Calcium channel blockers	Nifedipine (Adalat)	5mg	0.133	10mg	0.148
	Nifedipine SR (Adalat Retard)	20mg	0.114		
	Amlodipine (Norvasc)	5mg	0.2	10mg	0.32
		2.5mg	1.947	5mg	2.54
	Felodipine (Plendil)	10mg	5.089		
Alpha1-blockers	Prazosin (Minipress)	1mg	0.112	2mg	0.294
	Terazosin (Hytrin)	1mg	1.3	2mg	1.6
Centrally acting drugs	Methyldopa (Aldomet)	125mg	0.3	250mg	0.176

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- ◆ *Comments and suggestions are welcomed and should be addressed to the group coordinators.*

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Additional copies can be obtained by contacting PDQA, Department of Health.

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