SingHypertension Study

Treatment Algorithm for Antihypertensive and Lipid Medications for Polyclinics DUKEMINUS Hypertensive Individuals with Uncontrolled Blood Pressure Previously diagnosed hypertensive individuals with uncontrolled blood pressure Note: This treatment algorithm is not applicable for participants with any of the following conditions: Unstable heart failure (EF<20%) 2) Advanced kidney disease defined as eGFR <40ml/min/1.73 m² 3) Nephrotic range proteinuria 40-79 years ≥80 years (i.e. 3g/d or more) Known advanced liver disease (i.e. Child-Pugh stage C) CVD risk assessment Low/Medium CVD risk^{¥£} High CVD risk\$£ SBP ≥140 to 159 mmHg SBP≥160 mmHg FDC (ARB + TD) at half standard dose# or DBP ≥90 to 99 mmHg Or DBP≥100 mmHg Statin therapy* FDC (ARB+TD) at half BP CCB (standard dose)^ф controlled standard dose# Statin* if serum Statin* if serum LDL Continue therapy LDL >4.1 mmol/l >4.1 mmol/l BP **BP** not BP BP not **BP** not controlled controlled controlled, controlled √ controlled Continue therapy **Up-titration of CCB** Continue therapy **Up-titration of FDC** BP BP not BP not ΒP controlled 🗸 controlled controlled ψ controlled Continue therapy Add TD to therapy Add CCB to FDC Continue therapy BP **BP** not **BP** not controlled controlled controlled **BP not controlled** Continue therapy Add ACEi/ARB to therapy # Refer to Specialist

- [£] Individuals with compelling indications for beta-blocker (heart failure, post-myocardial infarction) are managed accordingly
- Continue current regimen if individuals are on ACEi/ARB or TD. Switch to CCB if on beta-blocker and uncontrolled BP
- # Individuals initiated on ACEi/ARB will be given a laboratory request for measurement of serum sodium, potassium) and serum creatinine in 4-6 weeks.
- * All high risk individuals will be treated with statin standard dose. Individuals started on statin will be given a request for serum alanine transaminase and muscle creatine kinase in 4-6 weeks.

CCB, calcium-channel blocker; **ACE**i, Angiotensin converting enzyme inhibitor; **ARB**, Angiotensin receptor blocker; **SBP**, Systolic blood pressure; **DBP**, Diastolic blood pressure; **FDC**, Fixed dose combination; **TD**, Thiazide-like diuretics; **Cr**, Creatinine; **ACR**, Albumin-to-creatinine ratio

¥ Low/Medium CVD risk

Individuals with CVD score identifying CVD risk <20% over 10 years without diabetes or previous history of CVD, or target organ damage, or renal disease

\$ High CVD risk

Individuals with any one of below:

- CVD score identifying CVD risk ≥ 20% over 10 years
- Diabetes
- Target organ damage
- Left ventricular hypertrophy as evidenced by echocardiography or electrocardiography if individual has one
- 2. Retinopathy
- 3. Proteinuria ACR 34 mg/mmol; 300 mg/day or more of albumin excretion
- 4. Renal disease (Estimated GFR <60 ml/min/1.73m²)
- Pre-existing CVD (previous history of heart disease, stroke)