

# Summary of Recommendation Statements

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## Chapter 2: Lifestyle and pharmacological treatments for lowering blood pressure in CKD ND patients

### GENERAL STRATEGIES

- 2.1: Individualize BP targets and agents according to age, co-existent cardiovascular disease and other co-morbidities, risk of progression of CKD, presence or absence of retinopathy (in CKD patients with diabetes) and tolerance of treatment. (*Not Graded*)
- 2.2: Inquire about postural dizziness and check for postural hypotension regularly when treating CKD patients with BP-lowering drugs. (*Not Graded*)

### LIFESTYLE MODIFICATION

- 2.3: Encourage lifestyle modification in patients with CKD to lower BP and improve long-term cardiovascular and other outcomes:
  - 2.3.1: We recommend achieving or maintaining a healthy weight (BMI 20 to 25). (*1D*)
  - 2.3.2: We recommend lowering salt intake to <90 mmol (<2 g) per day of sodium (corresponding to 5 g of sodium chloride), unless contraindicated. (*1C*)
  - 2.3.3: We recommend undertaking an exercise program compatible with cardiovascular health and tolerance, aiming for at least 30 minutes 5 times per week. (*1D*)
  - 2.3.4: We suggest limiting alcohol intake to no more than two standard drinks per day for men and no more than one standard drink per day for women. (*2D*)

## Chapter 3: Blood pressure management in CKD ND patients without diabetes mellitus

- 3.1: We recommend that non-diabetic adults with CKD ND and urine albumin excretion <30 mg per 24 hours (or equivalent\*) whose office BP is consistently >140 mm Hg systolic or >90 mm Hg diastolic be treated with BP-lowering drugs to maintain a BP that is consistently ≤140 mm Hg systolic and ≤90 mm Hg diastolic. (*1B*)
- 3.2: We suggest that non-diabetic adults with CKD ND and urine albumin excretion of 30 to 300 mg per 24 hours (or equivalent\*) whose office BP is consistently >130 mm Hg systolic or >80 mm Hg diastolic be treated with BP-lowering drugs to maintain a BP that is consistently ≤130 mm Hg systolic and ≤80 mm Hg diastolic. (*2D*)
- 3.3: We suggest that non-diabetic adults with CKD ND and urine albumin excretion >300 mg per 24 hours (or equivalent\*) whose office BP is consistently >130 mm Hg systolic or >80 mm Hg diastolic be treated with BP-lowering drugs to maintain a BP that is consistently ≤130 mm Hg systolic and ≤80 mm Hg diastolic. (*2C*)
- 3.4: We suggest that an ARB or ACE-I be used in non-diabetic adults with CKD ND and urine albumin excretion of 30 to 300 mg per 24 hours (or equivalent\*) in whom treatment with BP-lowering drugs is indicated. (*2D*)
- 3.5: We recommend that an ARB or ACE-I be used in non-diabetic adults with CKD ND and urine albumin excretion >300 mg per 24 hours (or equivalent\*) in whom treatment with BP-lowering drugs is indicated. (*1B*)

\*Approximate equivalents for albumin excretion rate per 24 hours—expressed as protein excretion rate per 24 hours, albumin/creatinine ratio, protein/creatinine ratio, and protein reagent strip results—are given in Table 1, Chapter 1.

## Chapter 4: Blood pressure management in CKD ND patients with diabetes mellitus

- 4.1: We recommend that adults with diabetes and CKD ND with urine albumin excretion  $<30$  mg per 24 hours (or equivalent\*) whose office BP is consistently  $>140$  mm Hg systolic or  $>90$  mm Hg diastolic be treated with BP-lowering drugs to maintain a BP that is consistently  $\leq 140$  mm Hg systolic and  $\leq 90$  mm Hg diastolic. (1B)
- 4.2: We suggest that adults with diabetes and CKD ND with urine albumin excretion  $>30$  mg per 24 hours (or equivalent\*) whose office BP is consistently  $>130$  mm Hg systolic or  $>80$  mm Hg diastolic be treated with BP-lowering drugs to maintain a BP that is consistently  $\leq 130$  mm Hg systolic and  $\leq 80$  mm Hg diastolic. (2D)
- 4.3: We suggest that an ARB or ACE-I be used in adults with diabetes and CKD ND with urine albumin excretion of 30 to 300 mg per 24 hours (or equivalent\*). (2D)
- 4.4: We recommend that an ARB or ACE-I be used in adults with diabetes and CKD ND with urine albumin excretion  $>300$  mg per 24 hours (or equivalent\*). (1B)

\*Approximate equivalents for albumin excretion rate per 24 hours—expressed as protein excretion rate per 24 hours, albumin/creatinine ratio, protein/creatinine ratio, and protein reagent strip results—are given in Table 1, Chapter 1.

## Chapter 5: Blood pressure management in kidney transplant recipients (CKD T)

- 5.1: We suggest that adult kidney transplant recipients whose office BP is consistently  $>130$  mm Hg systolic or  $>80$  mm Hg diastolic be treated to maintain a BP that is consistently  $\leq 130$  mm Hg systolic and  $\leq 80$  mm Hg diastolic, irrespective of the level of urine albumin excretion. (2D)
- 5.2: In adult kidney transplant recipients, choose a BP-lowering agent after taking into account the time after transplantation, use of calcineurin inhibitors, presence or absence of persistent albuminuria, and other co-morbid conditions. (Not Graded)

## Chapter 6: Blood pressure management in children with CKD ND

- 6.1: We recommend that in children with CKD ND, BP-lowering treatment is started when BP is consistently above the 90<sup>th</sup> percentile for age, sex, and height. (1C)
- 6.2: We suggest that in children with CKD ND (particularly those with proteinuria), BP is lowered to consistently achieve systolic and diastolic readings less than or equal to the 50<sup>th</sup> percentile for age, sex, and height, unless achieving these targets is limited by signs or symptoms of hypotension. (2D)
- 6.3: We suggest that an ARB or ACE-I be used in children with CKD ND in whom treatment with BP-lowering drugs is indicated, irrespective of the level of proteinuria. (2D)

## Chapter 7: Blood pressure management in elderly persons with CKD ND

- 7.1: Tailor BP treatment regimens in elderly patients with CKD ND by carefully considering age, co-morbidities and other therapies, with gradual escalation of treatment and close attention to adverse events related to BP treatment, including electrolyte disorders, acute deterioration in kidney function, orthostatic hypotension and drug side effects. (Not Graded)