CKM Guidance

Cardiovascular-Kidney-Metabolic Disease

Preventing Adverse Outcomes in Cardiovascular Kidney Metabolic Conditions

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Please make sure to periodically check for updated content.

Instructions:

The guidance is separated into the multiple sections.

Clicking on the yellow highlighted text will take you to the relevant section of the guidance on the guidance web site.

Clicking on a pink highlighted abbreviation will take you to the relevant abbreviation within the abbreviations section of this document.

Clicking on a blue link will open relevant external guidance in a new window for more detailed information.

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2. Outline, Screening and General Treatment of CKM conditions

Outline of CKM conditions

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- CKM conditions now affect at least one third of adults in Aotearoa New Zealand and combined are the most common cause of death, particularly from cardiovascular disease.
- Common CKM conditions include:
    - Cardiovascular conditions:

        - Hypertension
        - Coronary artery disease
        - Cerebrovascular disease
        - Peripheral arterial disease
        - Heart failure
        - Atrial fibrillation
    - Chronic kidney disease
    - Metabolic conditions:
        - Obesity
        - Diabetes
        - Dyslipidaemia
        - Gout
        - Metabolic dysfunction-associated steatotic liver disease (MASLD) – previously non-alcoholic fatty liver disease (NAFLD)

- CKM conditions may occur in isolation, but it is important to consider them together because:
    - People with one CKM condition often have other CKM conditions due to shared risk factors and pathophysiology
    - Whānau are not just one body part and management of all CKM conditions is important in optimising health and reducing cardiovascular risk
    - Management of each CKM condition is often influenced by other CKM conditions present
    - Management of one CKM condition can help prevent and manage other CKM conditions
    - This enables delivery of co-ordinated and integrated care

Screening for CKM conditions

Screening for CKM conditions

- Early identification of CKM conditions are important to maximise the chance of remission and to prevent and delay complications and other CKM conditions.
- Screening for CKM conditions now occurs at the CKM risk assessment (CKMRA). The CKMRA replaces and expands from the traditional CV risk assessment to include screening for excess adiposity, kidney disease, gout and OSA. The first CKMRA is performed earlier in higher-risk groups which include:

- Māori, Pacific, Indo-Asian and other non-European ethnicities
- Significant mental illness
- Long term glucocorticoid and/or antipsychotic use
- First-degree family history of CKM conditions at < 40 years of age
- Unemployment and low family income
- Kai unavailability/insecurity
- Tobacco smoking
- Excessive alcohol intake
- Prediabetes (HbA1c 42 – 47 mmol/mol)
- History of preeclampsia or gestational diabetes
- Chronic inflammatory conditions e.g. autoimmune inflammatory disease
- Clinical features of insulin resistance e.g. acanthosis nigricans, PCOS etc.
- Chronic dental and/or periodontal disease
- Sleep disorders
- Post transplant

- Opportunistic screening of CKM conditions remains important because many people will have contact with the health system with related presentations (e.g. recurrent infections with diabetes) or incidental findings (e.g. obesity at immunisations) years before their first or next CKMRA is due.

General Treatment of CKM conditions

General Treatment of CKM conditions

- Best management of CKM conditions is important in achieving equitable outcomes, prolonging healthy years of life and reducing early death from cardiovascular and renal disease.
- Early identification and ongoing appropriately intensive management of CKM conditions to treatment targets is essential to reduce CV events and organ-specific complications. Therefore, a CKM risk assessment (CKMRA) should be performed after diagnosing any CKM condition, as these conditions often coexist and best management depends on the presence of other CKM conditions, whether the CKM condition is high risk, and the calculated 5-year cardiovascular risk.
- High risk CKM conditions include ANY of:
  - CV disease including asymptomatic coronary or carotid disease (includes CT calcium score > 300)
  - Diabetes with any microvascular or macrovascular complication(s)

- LDLc ≥ 4.9 mmol/L and/or familial hypercholesterolaemia
- UACR ≥ 30 mg/mmol
- eGFR < 45 mL/min
- UACR 3 – 29 mg/mmol AND eGFR 45 – 59 mL/min

- CV risk is now re-stratified as:
  - High CV risk → 5 year CV risk ≥ 10%
  - Moderate CV risk → 5 year CV risk 5 - 9.9%
  - Low CV risk → 5 year CV risk < 5%

- **Treatment of CKM conditions should be offered when benefits are likely to outweigh risks based on best available evidence. Treatment decisions should be made through shared decision-making** with the person and their whānau, considering capacity to benefit, potential adverse effects, personal values, treatment alternatives, comorbidities, and life expectancy. Whilst absolute benefit is greatest in high risk CKM conditions, individuals deemed 'low or moderate risk' often still gain net treatment benefit, particularly if young and/or if marked abnormalities e.g. significantly elevated blood pressure.
- High risk CKM conditions include ANY of:
  - CV disease including asymptomatic coronary or carotid disease (includes CT calcium score > 300)
  - Diabetes with any microvascular or macrovascular complication(s)
  - LDLc ≥ 4.9 mmol/L and/or familial hypercholesterolaemia
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- **Healthy living interventions are the cornerstone of management of CKM conditions regardless of body weight.** Six key areas should be optimised:
  1. Education and support
  2. Holistic care
  3. Healthy eating
  4. Physical activity
  5. Healthy sleep
  6. Interventions for weight loss if excess adiposity → important because excess adiposity is often the primary driver of CKM conditions.

- Despite best attempts at healthy living, pharmacotherapy is often required to reach treatment targets. Specific recommendations for best pharmacotherapy for each CKM condition are discussed in each section of

the guidance.

- **NB:** There are currently marked disparities in best practice prescribing for people with CKM conditions, notably, less prescribing according to need for Māori and Pacific communities. Māori and Pacific people with CKM conditions have loudly expressed that these disparities can only be reduced by never assuming whether the individual will take medication or not and ensuring best practice is always offered regardless of funding. Failure to do so:
- Undermines basic tikanga concepts such as rangatiratanga, manaakitanga and kaitiakitanga
- Is a breach of Te Tiriti o Waitangi
- Ignores evidence that best practice provides the greatest chance to achieve:
  - Equitable outcomes in CKM conditions
  - Standardised care with reduced regional variation
  - Increased learning, efficiency and accountability in the health system
  - Lowest cost of care to the health system
  - BP and lipid lowering medications are now some of the most cost-effective interventions in health

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Abbreviations:

CKM
Cardiovascular-Kidney-Metabolic

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