**Supplementary material**

**Table S1.** Median and DI of all scenarios, stratified according to CKD category.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Chapter** | **Scenario group** | **Category (CKD grade)** | **Panelist rating** | **Median** | **DI** |
| Appropriateness of KA administration on CKD renal outcomes | Delaying CKD progression | 3a | 9 | 9 | 8 | 1 | 6 | 9 | 8 | 9 | 7 | 9 | 8 | **8** | **0.49180328** |
| 3b, 4 | 9 | 9 | 9 | 7 | 8 | 9 | 9 | 9 | 9 | 9 | 8 | **9** | **0.13157895** |
| 5 | 9 | 9 | 9 | 7 | 8 | 9 | 9 | 9 | 9 | 9 | 8 | **9** | **0.13157895** |
| Reducing mortality associated to renal causes  | 3a | 7 | 9 | 9 | 1 | 8 | 9 | 8 | 8 | 5 | 7 | 3 | 8 | 1.55844156 |
| 3b, 4 | 8 | 9 | 9 | 7 | 8 | 9 | 9 | 9 | 8 | 7 | 3 | **8** | **0.2919708** |
| 5 | 7 | 9 | 9 | 5 | 8 | 9 | 9 | 9 | 9 | 7 | 3 | **9** | **0.74766355** |
| Delaying KRT initiation | 3a | 9 | 9 | 9 | 1 | 8 | 9 | 9 | 9 | 9 | 9 | 7 | **9** | **0.2919708** |
| 3b, 4 | 9 | 9 | 9 | 7 | 8 | 9 | 9 | 9 | 9 | 9 | 7 | **9** | **0.2919708** |
| 5 | 9 | 9 | 9 | 5 | 8 | 9 | 9 | 9 | 9 | 9 | 7 | **9** | **0.2919708** |
| Reducing uremic toxins-associated damage | 3a | 8 | 9 | 9 | 1 | 7 | 9 | 9 | 7 | 5 | 8 | - | **8** | **0.87128713** |
| 3b, 4 | 9 | 9 | 9 | 6 | 7 | 9 | 9 | 9 | 9 | 9 | - | **9** | **0.3099631** |
| 5 | 9 | 9 | 9 | 6 | 7 | 9 | 9 | 9 | 9 | 9 | - | **9** | **0.3099631** |
| Reducing uremic toxins production | 3a | 9 | 9 | 9 | 1 | 8 | 9 | 8 | 8 | 5 | 8 | - | **8** | **0.87128713** |
| 3b, 4 | 9 | 9 | 9 | 7 | 8 | 9 | 9 | 9 | 9 | 9 | - | **9** | **0.1461794** |
| 5 | 9 | 9 | 9 | 7 | 8 | 9 | 9 | 9 | 9 | 9 | - | **9** | **0.1461794** |
| Appropriateness of KA administration on CKD manifestations and CKD extrarenal outcomes | Reducing the risk of CKD-MBD  | 3a | 8 | 9 | 8 | 1 | 3 | 9 | 9 | 8 | 5 | 6 | 5 | 8 | 1.55844156 |
| 3b, 4 | 8 | 9 | 8 | 7 | 5 | 9 | 7 | 8 | 7 | 7 | 6 | **7** | **0.49180328** |
| 5 | 8 | 9 | 8 | 7 | 5 | 9 | 8 | 9 | 7 | 7 | 6 | **8** | **0.49180328** |
| Adjunct therapy for CKD-MBD | 3a | 6 | 9 | 9 | 1 | 6 | 9 | 8 | 9 | 5 | 7 | 6 | **7** | **0.74766355** |
| 3b, 4 | 9 | 9 | 8 | 7 | 6 | 9 | 8 | 8 | 9 | 8 | 6 | **8** | **0.49180328** |
| 5 | 9 | 9 | 8 | 7 | 6 | 9 | 8 | 8 | 9 | 8 | 6 | **8** | **0.49180328** |
| Reducing the risk of MACE | 3a | 7 | 9 | 7 | 1 | 3 | 9 | 7 | 7 | 7 | 7 | 8 | 7 | 1.55844156 |
| 3b, 4 | 7 | 9 | 8 | 6 | 5 | 9 | 7 | 9 | 7 | 7 | 8 | **7** | **0.49180328** |
| 5 | 9 | 9 | 8 | 6 | 5 | 9 | 7 | 9 | 9 | 7 | 8 | **8** | **0.49180328** |
| Reducing all-cause mortality | 3a | 5 | 9 | 8 | 1 | 5 | 9 | 6 | 8 | 5 | 4 | 6 | 6 | 1.08695652 |
| 3b, 4 | 5 | 9 | 8 | 5 | 7 | 9 | 9 | 9 | 8 | 4 | 6 | **8** | **0.74766355** |
| 5 | 5 | 9 | 8 | 5 | 7 | 9 | 8 | 9 | 8 | 4 | 6 | **8** | **0.74766355** |
| Achieving glycemic control | 3a | 4 | 7 | 4 | 1 | 5 | 9 | 5 | 7 | 5 | 4 | 5 | 5 | **0.96774194** |
| 3b, 4 | 4 | 9 | 4 | 1 | 5 | 9 | 5 | 8 | 8 | 4 | 5 | 5 | 1.08695652 |
| 5 | 4 | 9 | 4 | 1 | 5 | 9 | 5 | 8 | 8 | 4 | 5 | 5 | 1.08695652 |
| Adjunct therapy for hypertriglyceridemia | 3a | 5 | 9 | 3 | 1 | 5 | 9 | 6 | 6 | 9 | 4 | 5 | 5 | 1.55844156 |
| 3b, 4 | 8 | 9 | 3 | 6 | 5 | 9 | 6 | 8 | 9 | 4 | 5 | 6 | 1.08695652 |
| 5 | 5 | 9 | 3 | 6 | 5 | 9 | 6 | 8 | 9 | 4 | 5 | 6 | 1.08695652 |
| Adjunct therapy for hypercholesterolemia | 3a | 5 | 9 | - | 1 | 5 | 6 | 6 | 6 | 1 | 4 | 6 | 5.5 | 1.21142857 |
| 3b, 4 | 6 | 9 | - | 6 | 5 | 6 | 6 | 6 | 8 | 4 | 6 | 6 | **0.69565217** |
| 5 | 6 | 9 | - | 6 | 5 | 6 | 6 | 6 | 8 | 4 | 6 | 6 | **0.69565217** |
| Reducing the risk of PEW | 3a | 6 | 9 | 9 | 1 | 7 | 9 | 9 | 8 | 5 | 9 | - | **8.5** | **0.87128713** |
| 3b, 4 | 6 | 9 | 9 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | - | **9** | **0.3099631** |
| 5 | 6 | 9 | 9 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | - | **9** | **0.3099631** |
| Appropriateness of KA administration along other drugs that are commonly prescribed in patients with CKD | SGLT2i | 3a | 9 | 9 | 9 | 1 | 8 | 9 | 9 | 9 | 9 | 7 | 8 | **9** | **0.2919708** |
| 3b, 4 | 9 | 9 | 9 | 5 | 8 | 9 | 9 | 9 | 9 | 9 | 8 | **9** | **0.13157895** |
| 5 | 9 | 9 | 9 | 5 | 8 | 9 | 9 | 9 | 9 | 9 | 8 | **9** | **0.13157895** |
| GLP-1 RA | 3a | 9 | 9 | 9 | 1 | 5 | 9 | 9 | 9 | 9 | 7 | 8 | **9** | **0.74766355** |
| 3b, 4 | 9 | 9 | 9 | 5 | 8 | 9 | 9 | 9 | 9 | 9 | 8 | **9** | **0.13157895** |
| 5 | 9 | 9 | 9 | 5 | 8 | 9 | 9 | 8 | 9 | 9 | 8 | **9** | **0.13157895** |
| Finerenone | 3a | 9 | 9 | 9 | 1 | 5 | 9 | 9 | 8 | 9 | 5 | 8 | **9** | **0.74766355** |
| 3b, 4 | 9 | 9 | 9 | 5 | 8 | 9 | 9 | 8 | 9 | 9 | 8 | **9** | **0.13157895** |
| 5 | 9 | 9 | 9 | 5 | 8 | 9 | 9 | 8 | 9 | 9 | 8 | **9** | **0.13157895** |
| ARB | 3a | 9 | 9 | 9 | 1 | 7 | 9 | 9 | 8 | 5 | 7 | 8 | **8** | **0.74766355** |
| 3b, 4 | 9 | 9 | 9 | 5 | 7 | 9 | 9 | 9 | 9 | 9 | 8 | **9** | **0.2919708** |
| 5 | 9 | 9 | 9 | 5 | 7 | 9 | 9 | 9 | 9 | 9 | 8 | **9** | **0.2919708** |
| ARNi | 3a | 9 | 9 | 9 | 1 | 8 | 9 | 9 | 9 | 9 | 7 | 8 | **9** | **0.2919708** |
| 3b, 4 | 9 | 9 | 9 | 5 | 8 | 9 | 9 | 9 | 9 | 9 | 8 | **9** | **0.13157895** |
| 5 | 9 | 9 | 9 | 5 | 8 | 9 | 9 | 8 | 9 | 9 | 8 | **9** | **0.13157895** |
| ACEi | 3a | 9 | 9 | 9 | 1 | 8 | 9 | 9 | 9 | 9 | 7 | 8 | **9** | **0.2919708** |
| 3b, 4 | 9 | 9 | 9 | 5 | 8 | 9 | 9 | 9 | 9 | 9 | 8 | **9** | **0.13157895** |
| 5 | 9 | 9 | 9 | 5 | 8 | - | 9 | 9 | 9 | 9 | 8 | **9** | **0.17627119** |
| Betablockers | 3a | 9 | 9 | 9 | 1 | 5 | - | 9 | 8 | 9 | 7 | 8 | **8.5** | **0.87128713** |
| 3b, 4 | 9 | 9 | 9 | 5 | 7 | - | 9 | 9 | 9 | 9 | 8 | **9** | **0.32835821** |
| 5 | 9 | 9 | 9 | 5 | 7 | - | 9 | 8 | 9 | 9 | 8 | **9** | **0.32835821** |
| Statins | 3a | 9 | 9 | 9 | 1 | 5 | - | 9 | 9 | 9 | 7 | 8 | **9** | **0.87128713** |
| 3b, 4 | 9 | 9 | 9 | 5 | 7 | - | 9 | 9 | 9 | 9 | 8 | **9** | **0.32835821** |
| 5 | 9 | 9 | 9 | 5 | 7 | - | 9 | 8 | 9 | 9 | 8 | **9** | **0.32835821** |
| Antiplatelets | 3a | 9 | 9 | 9 | 1 | 5 | - | 9 | 8 | 9 | 7 | 8 | **8.5** | **0.87128713** |
| 3b, 4 | 9 | 9 | 9 | 5 | 8 | - | 9 | 8 | 9 | 9 | 8 | **9** | **0.17627119** |
| 5 | 9 | 9 | 9 | 5 | 8 | - | 9 | 8 | 9 | 9 | 8 | **9** | **0.17627119** |
| Appropriateness of calcium citrate administration in CKD patients | Reducing the risk of metabolic acidosis | 3a | 5 | 9 | - | 1 | 7 | 9 | 9 | 8 | 9 | 6 | 8 | **8** | **0.87128713** |
| 3b, 4 | 6 | 9 | - | 7 | 7 | 9 | 9 | 9 | 9 | 7 | 8 | **8.5** | **0.3099631** |
| 5 | 6 | 9 | - | 7 | 7 | 9 | 9 | 9 | 9 | 7 | 8 | **8.5** | **0.3099631** |
| Adjunct therapy of metabolic acidosis, | 3a | 6 | 9 | - | 1 | 7 | 9 | 4 | 7 | 7 | 7 | 5 | 7 | 1.21142857 |
| 3b, 4 | 8 | 9 | - | 7 | 7 | 9 | 7 | 8 | 9 | 7 | 5 | **7.5** | **0.32835821** |
| 5 | 8 | 9 | - | 7 | 7 | 9 | 7 | 9 | 9 | 7 | 5 | **7.5** | **0.32835821** |
| Calcium supplementation | 3a | 8 | 9 | - | 1 | 7 | 8 | 9 | 8 | 8 | 4 | 6 | 8 | 1.21142857 |
| 3b, 4 | 8 | 9 | - | 6 | 7 | 9 | 9 | 8 | 9 | 7 | 6 | **8** | **0.49180328** |
| 5 | 8 | 9 | - | 6 | 7 | 9 | 9 | 9 | 9 | 7 | 6 | **8.5** | **0.49180328** |
| Reducing the risk of secondary hyperparathyroidism | 3a | 4 | 9 | - | 1 | 7 | 9 | 9 | 9 | 5 | 3 | 5 | 6 | 1.67567568 |
| 3b, 4 | 6 | 9 | - | 1 | 7 | 9 | 9 | 9 | 9 | 7 | 5 | **8** | **0.87128713** |
| 5 | 6 | 9 | - | 1 | 7 | 9 | 9 | 9 | 9 | 7 | 5 | **8** | **0.87128713** |
| Reducing the risk of CKD-MBD | 3a | 7 | 9 | - | 1 | 7 | 9 | 9 | 7 | 5 | 6 | 6 | **7** | **0.87128713** |
| 3b, 4 | 7 | 9 | - | 1 | 7 | 9 | 9 | 9 | 9 | 6 | 6 | **8** | **0.61135371** |
| 5 | 7 | 9 | - | 1 | 7 | 9 | 9 | 9 | 9 | 6 | 6 | **8** | **0.61135371** |
| Adjunct therapy of hyperphosphatemia | 3a | 4 | 9 | - | 1 | 7 | 9 | 9 | 8 | 9 | 7 | 8 | 8 | 1.21142857 |
| 3b, 4 | 7 | 9 | - | 1 | 7 | 9 | 9 | 8 | 9 | 7 | 8 | **8** | **0.40625** |
| 5 | 7 | 9 | - | 1 | 7 | 9 | 9 | 9 | 9 | 7 | 8 | **8.5** | **0.40625** |
| Appropriateness of inulin administration in CKD patients | Reducing uremic toxins-associated damage | 3a | 9 | 9 | 8 | 1 | 8 | 9 | 7 | 8 | 9 | 7 | 7 | **8** | **0.2919708** |
| 3b, 4 | 9 | 9 | 8 | 7 | 8 | 9 | 7 | 9 | 9 | 8 | 7 | **8** | **0.2919708** |
| 5 | 9 | 9 | 8 | 7 | 8 | 9 | 8 | 9 | 9 | 8 | 7 | **8** | **0.2919708** |
| Reducing uremic toxins production | 3a | 9 | 9 | 8 | 1 | 8 | 9 | 7 | 8 | 9 | 7 | 7 | **8** | **0.2919708** |
| 3b, 4 | 9 | 9 | 9 | 7 | 8 | 9 | 9 | 9 | 9 | 9 | 7 | **9** | **0.2919708** |
| 5 | 9 | 9 | 9 | 7 | 8 | 9 | 9 | 9 | 9 | 9 | 7 | **9** | **0.2919708** |
| Delaying CKD progression | 3a | 8 | 9 | 8 | 1 | 8 | 7 | 7 | 9 | 9 | 7 | 7 | **8** | **0.2919708** |
| 3b, 4 | 9 | 9 | 8 | 7 | 8 | 7 | 7 | 9 | 9 | 8 | 7 | **8** | **0.2919708** |
| 5 | 9 | 9 | 8 | 7 | 8 | 9 | 7 | 9 | 9 | 8 | 7 | **8** | **0.2919708** |
| Reducing the risk of MACE | 3a | 7 | 3 | 7 | 1 | 6 | 5 | 7 | 8 | 7 | 6 | 7 | 7 | 1.70212766 |
| 3b, 4 | 8 | 3 | 7 | 4 | 7 | 7 | 7 | 8 | 7 | 6 | 7 | 7 | 1.03896104 |
| 5 | 8 | 3 | 7 | 4 | 7 | 7 | 7 | 8 | 7 | 6 | 7 | 7 | 1.03896104 |
| Reducing insulin resistance | 3a | 9 | 3 | 8 | 1 | 8 | 8 | 8 | 8 | 9 | 7 | 7 | 8 | 1.55844156 |
| 3b, 4 | 9 | 3 | 8 | 1 | 8 | 8 | 8 | 8 | 9 | 8 | 7 | 8 | 1.55844156 |
| 5 | 9 | 3 | 8 | 1 | 8 | 8 | 8 | 8 | 9 | 9 | 7 | 8 | 1.55844156 |
| Reducing the risk of dyslipidemia | 3a | 9 | 9 | 7 | 1 | 7 | 7 | 7 | 8 | 9 | 6 | 8 | **7** | **0.49180328** |
| 3b, 4 | 9 | 9 | 7 | 1 | 7 | 9 | 8 | 8 | 9 | 8 | 8 | **8** | **0.2919708** |
| 5 | 9 | 9 | 7 | 1 | 7 | 9 | 9 | 8 | 9 | 8 | 8 | **8** | **0.2919708** |
| Adjunct therapy of dyslipidemia | 3a | 9 | 7 | 7 | 1 | 7 | 7 | 7 | 8 | 9 | 6 | 8 | **7** | **0.49180328** |
| 3b, 4 | 9 | 7 | 7 | 1 | 7 | 7 | 7 | 8 | 9 | 8 | 8 | **7** | **0.2919708** |
| 5 | 9 | 7 | 7 | 1 | 7 | 7 | 7 | 8 | 9 | 9 | 8 | **7** | **0.2919708** |
| Reducing gastrointestinal symptoms | 3a | 9 | 7 | 9 | 1 | 7 | 7 | 9 | 8 | 9 | 3 | 7 | 7 | 1.55844156 |
| 3b, 4 | 9 | 7 | 9 | 7 | 7 | 7 | 9 | 8 | 9 | 5 | 7 | **7** | **0.2919708** |
| 5 | 9 | 7 | 9 | 7 | 7 | 7 | 9 | 8 | 9 | 5 | 7 | **7** | **0.291970803**  |

The table shows all scenarios, which were grouped in “chapters”. Consensus was reached when DI < 1 (in bold). Ratings were considered “appropriate” when median ≥ 7 (in bold when DI < 1). Abbreviations: *ACEi* = angiotensin-converting enzyme inhibitors; *ARB* = angiotensin II receptor blockers; *ARNi* = angiotensin receptor neprilysin inhibitors; *CKD* = chronic kidney disease; *CKD-MBD* = chronic kidney disease mineral bone disorder; *GLP-1 RA* = glucagon-like peptide 1 receptor agonists; *KA* = ketonanalogues of amino acids; *KRT* = kidney replacement therapy; *MACE* = major adverse cardiovascular events; *PEW* = protein-energy wasting; *SGLT2i* = sodium glucose co-transporter type 2 inhibitors.