Nuts & Bolts of RAASi Therapy in the Intersection of Kidney and Cardiovascular Diseases

ACEi, ARB, sMRA*, nsMRA, ARNi* (*for managing heart failure only)

**Indications for RAASi**

<table>
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<th>Hypertension</th>
<th>Diabetes with CKD</th>
<th>Chronic Kidney Disease</th>
<th>Heart Failure</th>
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For all indications: avoid any combination of ACEi, ARB, direct renin inhibitor

**Early Monitoring**

Monitor kidney function and electrolytes at start and 2 - 4 weeks following RAASi initiation or dosage adjustments RAASi:

- Creatinine
- Potassium (K+)
- Bicarbonate

*Consider creatinine rise up to 30% as an appropriate hemodynamic change

**Long-Term Management**

- Closely follow the labs for the items in the “Early Monitoring” box above until they are in safe ranges
- Include monitoring of kidney function and electrolytes (creatinine, potassium and bicarbonate) during routine visits
- Up-titrate RAASi to maximally tolerated, evidence-based doses
- Mitigate the risk of hyperkalemia with preventive measures (continuous review of concomitant drugs, diet, use of diuretics, acidosis correction and K+ binders) to ensure optimal RAASi utilization

**Potential Issues**

- **Hyperkalemia** – if hyperkalemia arises, manage according to this tool. Discontinue RAASi as a last resort
- **Acute decline in kidney function**: if increase in creatinine occurs, manage according to this tool. Discontinue RAASi as a last resort
- **Metabolic acidosis**: review diet and reduce intake of animal protein and processed foods. Consider prescription of oral bicarbonate

Infographic by Gates Colbert @DoctorGates and Kershaw Patel @kershawpatel

For funding and support information, see: https://www.theisn.org/initiatives/toolkits/raasi-toolkit/#Support