UCMC – Orthostatic Hypotension Management in Kidney Transplant

Pre-Transplant Candidates

Consider screening patients at evaluation clinic visit using checklist:

- ☐ Diabetic Kidney Disease
- ☐ H/o dizziness, lightheadedness, syncope
- ☐ H/o CAD, PVD, carotid stenosis > 50%
- ☐ Hemoglobin < 10 mg/dL
- ☐ High risk medications:

Examples of drugs that can cause or exacerbate orthostatic hypotension
Alcohol
Alpha blockers: Terazosin (eg)
Antidepressant drugs: Selective serotonin receptor reuptake inhibitors, trazodone, monoamine oxidase inhibitors, tricyclic antidepressants
Antihypertensive drugs: Sympathetic blockers (eg)
Antiparkinsonism drugs: Levodopa, pramipexole, ropinirole (egs)
Antipsychotic drugs: Olanzapine, risperidone (egs)
Beta-blocker drugs: Propranolol (eg)
Diuretic drugs: Hydrochlorothiazide, furosemide (egs)
Muscle relaxant drugs: Tizanidine (eg)
Narcotic analgesic drugs: Morphine (eg)
Phosphodiesterase inhibitors: Sildenafil, tadalafil (egs)
Sedatives/hypnotic drugs: Temazepam (eg)
Vasodilator drugs: Hydralazine, nitroglycerin, calcium channel blockers (egs)

If any of the above present:

- Check orthostatic vital signs at visit.
- Address modifiable risk factors.

Post-Transplant Recipients

Screening

- Check orthostatic vital signs at clinic visits for 1 month. Adjust anti-hypertensives accordingly.
- Educate patients with orthostatic hypotension about measuring BP at home. Monitor and record supine, sitting and standing blood pressures upon awakening: before and one hour after lunch; and before retiring to bed.
- Prescribe/arrange sphygmomanometers for home as needed.

Treatment

- Provide patient education:
  - ❑ Stand up slowly and give body time to adapt.
  - ❑ Avoid getting up in night. Use bedside urinals.
  - ❑ Avoid running, hiking, or doing anything that takes a lot of energy in hot weather. Avoid excessive sweating.
  - ❑ Maintain adequate hydration. Drink water during meals and before getting out of bed in morning.
  - ❑ Raise head of bed by 10-15 degrees.
  - ❑ Wear compression stockings and abdominal binder if cleared by txp surgery.
  - ❑ Avoid alcohol, opioids.
  - ❑ Avoid straining/constipation, violent coughing.
  - ❑ Modification of meals: avoid meals high in carbohydrates, eat small more frequent meals with plenty of water.
  - ❑ Teach physical maneuvers (leg crossing while standing, bending forward, squatting to prevent syncope, buttock clenching/whole body tensing). May consider physical/occupational therapy evaluation.
  - ❑ Consider increasing sodium intake (target sodium dose of 6 to 10 g/day) if clinically appropriate.
- Consider pharmacological therapy such as:
  - ❑ Fludrocortisone, midodrine, droxidopa, pyridostigmine, caffeine