Membranous Nephropathy:
CYCLOPHOSPHAMIDE PROTOCOL
Modified Ponticelli Regimen

To obtain cyclophosphamide coverage under the BCR GN Formulary:

- Ensure the patient is registered in PROMIS, or if already registered, ensure address and phone number are accurate for medication delivery
- Fax this prescription along with an application form to Macdonald’s Pharmacy at 1-866-685-0305

1. 6-month corticosteroid and cyclophosphamide protocol (modified Ponticelli regimen):

   **Month 1, 3 and 5:**
   - methylPREDNIsone IV x 3 days at the beginning of months 1, 3 and 5 (follow medical short stay orders on page 3)
   - Then predniSONE 0.5 mg/kg ________ mg (max 30 mg) PO daily for approximately 27 days (i.e. for the remainder of the 1 month period) to be given on:
     (Month 1 dates) _____________ to _____________
     (Month 3 dates) _____________ to _____________
     (Month 5 dates) _____________ to _____________

   - At the end of month 1, 3 and 5 taper off predniSONE by reducing the dose by 5 mg per day until the patient reaches a total daily dose of 10 mg; then reduce the dose by 2.5 mg per day until off.

   **Month 2, 4 and 6:**
   - cyclophosphamide (recommend: 2 mg/kg/day, round to nearest 25 mg) ________ mg (usual max 175 mg)
     PO daily every morning with plenty of water throughout the day, for approximately 30 days during months 2, 4 and 6. On the following dates:
     (Month 2 dates) _____________ to _____________
     (Month 4 dates) _____________ to _____________
     (Month 6 dates) _____________ to _____________

   **Recommended cyclophosphamide dosing schedule**
   - eGFR less than 30 ml/min/1.73 m² OR age over 70 years: Reduce dose by 25%
   - eGFR less than 30 ml/min/1.73 m² AND age over 70 years: Reduce dose by 50%
   - WBC nadir less than 3.5 x 10⁹/L: Hold until WBC recovers and reduce subsequent doses by 25%

   **Quantities:** Fill entire quantity

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This communication is intended only for the use of the BC Renal. It may contain information that is confidential.
If you receive this communication in error, please notify us immediately at (604) 875-7366.
2. Osteoporosis prevention while on the modified Ponticelli regimen:
calcium: The recommended daily intake is 1000 mg (19 to 50 years old) to 1200 mg of elemental calcium (over 50 years old). Supplement as necessary to reach this target.
  ☐ calcium carbonate 1250 mg (500 mg elemental) 1 tab PO daily
  ☐ calcium carbonate 1250 mg (500 mg elemental) _______ tabs PO _______

vitamin D: The recommended daily intake is 600 units (1 to 70 years old) to 800 units (over 70 years old). Supplement as necessary to reach this target:
  ☐ vitamin D₃ 400 units PO daily
  ☐ vitamin D₃ _______ units PO daily

alendronate: Is recommended in patients with a history of fragility fracture or an established diagnosis of osteoporosis, in postmenopausal women, in men greater or equal to 50 years old, or in patients greater or equal to 30 years old where the initial predniSONE dose is greater or equal to 30 mg/day and who have been exposed to over 5 grams of predniSONE in the previous year. Additional patients may also qualify based on their FRAX score (see Supporting Evidence).
  ☐ alendronate 70 mg PO weekly
  ☐ ______________________ mg PO _______

3. GI prophylaxis while on the modified Ponticelli regimen:
  ☐ ranitidine 150 mg PO BID
  ☐ ranitidine 150 mg PO daily if eGFR less than 50 ml/min/1.73 m²
  ☐ pantoprazole magnesium 40 mg PO daily (note: special authority required)

4. Pneumocystis jiroveci prophylaxis while on the modified Ponticelli regimen:
  ☐ sulfamethoxazole-trimethoprim (e.g. SEPTRA SS) 400/80 mg 1 tab PO daily
  ☐ sulfamethoxazole-trimethoprim (e.g. SEPTRA DS) 800/160 mg 1 tab PO 3x/week
  ☐ sulfamethoxazole-trimethoprim (e.g. SEPTRA SS) 400/80 mg 1 tab PO 3x/week if eGFR less than 30 ml/min/1.73 m²
  ☐ dapsone 100 mg PO daily (for patients who cannot tolerate sulfamethoxazole-trimethoprim; monitor for hemolysis and test for G6PD deficiency)
  ☐ ______________________ mg PO __________________

Quantities: New prescription fill quantity shall be for 90 days and if tolerated, may repeat times one. It is recommended that calcium and vitamin D be purchased over the counter.
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DRUG AND FOOD ALLERGIES

● Mandatory □ Optional: Prescriber check (✓) to initiate, cross out and initial any orders not indicated.

● Admit to medical short stay under Dr. ____________________________

● Insert IV in dominant arm, or if arteriovenous fistula or graft present, then opposite arm

● Vital signs x 1, then as required

□ methylPREDNIsone 1000 mg IV x 3 days at the beginning of months 1, 3 and 5
□ methylPREDNIsone _________ mg IV x 3 days at the beginning of months 1, 3 and 5

The patient is to receive the above methylPREDNIsolone doses on the following consecutive dates:

Month 1: ____________________________________________
Month 3: ____________________________________________
Month 5: ____________________________________________

● Remove IV

● Discharge home
INSTRUCTIONS:

Complete the following blood work at baseline (at the start of month 1 and 2) and then after every week during the 1st month of cyclophosphamide (during month 2), on the following dates:

(Month 1 baseline date): ________________________ (Month 2 baseline date): ________________________
(Month 2 week 1 date): ________________________ (Month 2 week 2 date): ________________________
(Month 2 week 3 date): ________________________ (Month 2 week 4 date): ________________________

Note: Subsequent blood work frequency during months 3 to 6 should be based on tolerability and safety during months 1 and 2, and should be ordered as clinically indicated.

LABORATORY TESTS:

- CBC with differential, creatinine, urea, sodium, potassium, bicarbonate, chloride
- AST, ALT, ALP, GGT, total bilirubin

Additional tests:

Distribute results to all those ticked below:

- Ordering Nephrologist:
- Copies to:
- Computer Download PROMIS (BC Bio-Med LEAD4, LifeLabs H0762)