

## Gout Management

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### Review of Gout

#### What is gout?

- The presence of monosodium urate (MSU) crystals in synovial fluid obtained from joints or bursas
- Typically characterized by severe pain, redness, swelling, tenderness or warmth and disability

### Gout Management

#### Relief of Acute Attacks

| Medication                   | Common Dose (PO)  | Medication Pearls   |
|------------------------------|---|---|
| <b>Colchicine (Colcrys®)</b> | <b>Prophylaxis:</b> 0.6 mg once or twice daily<br><b>Treatment:</b> 1.2 mg at first sign of flare followed by 0.6mg after 1 hour  | Use of low dose colchicine is recommended to limit AEs (nausea/vomiting/diarrhea). Avoid use with strong CYP3A4 or P-gp inhibitors. |
| <b>Analgesics (NSAIDs)</b>   | <b>Indomethacin:</b> 50 mg TID until pain is tolerable then taper based on response; initiate within 24-48 hours of flare onset<br><b>Naproxen:</b> 750 mg once then 250 mg Q8h until acute attack resolves; initiate within 24-48 hours of flare onset | Consider alternative in those with peptic ulcer disease, uncontrolled CHF, HTN or known CVD   |
| <b>Corticosteroids</b>       | <b>Prednisone:</b> 0.5 mg/kg/day for 5-10 days then stop OR 0.5 mg/kg/day for 2-5 days followed by tapering over 7-10 days then stop  | Consider alternative in those with history of uncontrolled DM, HTN, or CHF  |

#### Long-Term Urate Lowering Therapies

| Medication                     | Common Dose (PO)   | Medication Pearls   |
|--------------------------------|--|---|
| <b>Allopurinol (Zyloprim®)</b> | <b>Initial:</b> 100 mg once daily; <i>Titrate in 100 mg increments every 2-4 weeks to achieve desired uric acid level</i>  | Preferred first line therapy in all patients, including those with CKD stage $\geq 3$ |
| <b>Febuxostat (Uloric®)</b>    | <b>Initial:</b> 40 mg once daily; <i>May increase to 80 mg once daily in patients who do not achieve uric acid <math>&lt; 6</math> mg/dL after 2 weeks</i>             | Avoid use in those with history of CVD or new CVD-related event                       |
| <b>Probenecid</b>              | <b>Initial:</b> 250 mg twice daily for 1 week, followed by 500mg twice daily; <i>May increase dose by 500 mg every 4 weeks as tolerated to achieve symptom control</i> | Avoid use in patients with CKD stage $\geq 3$ due to reduced efficacy                 |

### Prevention of Flares

1. Urate-lowering therapy should be initiated for gout with  $\geq 1$  subcutaneous tophi, evidence of radiographic damage or frequent gout flares ( $\geq 2$  annually)
2. Concomitant anti-inflammatory therapy should be used short-term for up to 3-6 months, with ongoing evaluation and continued prophylaxis as needed
3. Counsel patients to avoid certain foods that increase risk of gout flares
  - Food and drinks containing high fructose corn syrup, fatty cuts of meat, high fat dairy products, shellfish, anchovies, sardines, alcoholic beverages

#### Concurrent Medication Therapy Recommendations:

- Switch hydrochlorothiazide to an alternative antihypertensive when feasible
- Choose losartan preferentially for hypertension when feasible

### Goals of Treatment

- Treat-to-target to reduce uric acid level to  **$< 6$  mg/dl**
- Relieve pain and inflammation during acute attacks
- Prevent joint damage