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## ED Acute Gout Order Set

ACTION

The intent of this order set is to assist with the ED management of acute gout and the eventual transition into primary care.

### Administration

- Diagnosis: Gout:
    - First episode
    - Recurrent episode
    - Number of acute episodes in the preceding year: \_\_\_\_\_
  - Comorbidities:
    - Cardiovascular disease
    - Renal disease
    - Gastrointestinal disease
    - Diabetes mellitus
    - \_\_\_\_\_
  - Allergies or hypersensitivities?
    - None known
    - Yes: Refer to facility's allergy documentation/process
- \*\*\*Prescriber to complete Advance Care Planning and Directive Order Set, as applicable\*\*\***
- Does patient have Advanced Care Directives?
    - If yes, ensure a copy is in the patient chart
    - If no, refer to Advance Care Planning and Directive Order Set
  - Code Status:
    - Full Resuscitation
    - \_\_\_\_\_

### Consults

- Dietitian for nutritional counselling
- Nephrologist - Reason: \_\_\_\_\_
- OT - Reason: \_\_\_\_\_
- PT - Reason: \_\_\_\_\_
- Psychiatrist - Reason: \_\_\_\_\_
- Pharmacist for medication review
- Recreation Therapist - Reason: \_\_\_\_\_
- Rheumatologist - Reason: \_\_\_\_\_
- Smoking Cessation Program
- SW - Reason: \_\_\_\_\_
- \_\_\_\_\_ - Reason: \_\_\_\_\_

### Nursing Care Management

#### Vitals/Monitoring

- T, HR, RR, BP q \_\_\_\_\_ h and PRN
- Pain Score q4h and PRN

#### Capillary Blood Glucose Monitoring

- For patient with diabetes, Capillary Blood Glucose monitoring as per policy/procedure
- Capillary Blood Glucose \_\_\_\_\_ (frequency)
- \_\_\_\_\_

#### Diet

- Low Purine Diet as per policy/procedure
- \_\_\_\_\_

#### Activity

- Elevate affected joint
- Cold therapy (topical ice as needed)
- \_\_\_\_\_

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### Lab Investigations

\*\*\*A low serum uric acid level, if measured during acute event, does not rule out acute gout\*\*\*<sup>(1)</sup>

- CBC
- Uric Acid <sup>(2)</sup>
- Creatinine
- \_\_\_\_\_

### Diagnostics

- Joint aspiration for synovial fluid analysis (cells, crystals, C & S, gram stain)
- X-ray \_\_\_\_\_ Reason: \_\_\_\_\_
- Ultrasound \_\_\_\_\_ Reason: \_\_\_\_\_
- CT scan \_\_\_\_\_ Reason: \_\_\_\_\_
- \_\_\_\_\_

### IV Therapy

- Saline lock and flush as per policy/procedure
- \_\_\_\_\_

### Acute Flare-up Management

\*\*\*Urate-lowering therapy (e.g. allopurinol, febuxostat) should not be interrupted or initiated during an acute attack\*\*\*<sup>(2)</sup>

#### First-line Therapy

##### Nonsteroidal anti-inflammatory drugs (NSAIDs)

\*\*\*Prescriber to consider PPI for patients at high risk of GI bleeding\*\*\*

- naproxen 500 mg PO STAT for 1 dose
- Then  naproxen \_\_\_\_\_ mg PO q \_\_\_\_\_ h (500 mg, q12h) [caution-GI,hepatic,renal]
- \_\_\_\_\_

##### Colchicine

- colchicine 1.2 mg PO for 1 dose [caution-hepatic,renal]
- Then after 1 hour  colchicine 0.6 mg PO for 1 dose [caution-hepatic,renal]
- \_\_\_\_\_

##### Corticosteroids

- prednisone \_\_\_\_\_ mg PO q24h for 5 days (30 – 35 mg)
- \_\_\_\_\_

### Sedation (Prep for Joint Aspiration)

\*\*\*Consider using a sedative prior to joint aspiration\*\*\*

- \_\_\_\_\_

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### Chronic Prophylaxis

\*\*\*Urate-lowering therapy (e.g. allopurinol, febuxostat) should not be interrupted or initiated during an acute attack\*\*\*

\*\*\*If allopurinol selected, prescriber to select a low starting dose and titrate q4weeks to desired maintenance dose\*\*\*

- Start chronic prophylaxis on \_\_\_\_\_ (yyyy-mm-dd)
- allopurinol \_\_\_\_\_ mg PO q24h (50 – 100 mg, **max 800 mg**) [caution-renal]
- febuxostat \_\_\_\_\_ mg PO q24h (80 mg)
- colchicine \_\_\_\_\_ mg PO q \_\_\_\_\_ h (0.6 mg, q24h) [caution-geriatric,hepatic,renal]

### Nonsteroidal anti-inflammatory drugs (NSAIDs)

\*\*\*Prescriber to consider PPI for patients at high risk of GI bleeding\*\*\*

- naproxen \_\_\_\_\_ mg PO q \_\_\_\_\_ h (250 mg, q12h) [caution-GI,hepatic,renal]
- \_\_\_\_\_

### Discharge and Follow-up

- Discharge date: \_\_\_\_\_ (yyyy-mm-dd)
- Discharge patient home       Discharge patient to: \_\_\_\_\_
- Complete discharge medication reconciliation process prior to discharge as per policy/procedure
- Provide a copy of relevant documents to the primary care provider as per policy/procedure
- \_\_\_\_\_

### Appointments to be Arranged Prior to Discharge

- Primary Care Provider: \_\_\_\_\_ Phone Number: \_\_\_\_\_
  - Arranged by hospital: Date: \_\_\_\_\_ Time: \_\_\_\_\_      **or**       You will be notified
  - Patient to arrange appointment to be seen in \_\_\_\_\_ day(s) \_\_\_\_\_      **or**      \_\_\_\_\_ week(s)
- \_\_\_\_\_ Phone Number: \_\_\_\_\_
  - Arranged by hospital: Date: \_\_\_\_\_ Time: \_\_\_\_\_      **or**       You will be notified
  - Patient to arrange appointment to be seen in \_\_\_\_\_ day(s) \_\_\_\_\_      **or**      \_\_\_\_\_ week(s)

### Patient Education

- Provide applicable education and discharge instructions to the patient as per policy/procedure

The following topics are important to include within patient education:<sup>(3)</sup>

- Diet modifications, e.g. low animal purine diet, reduce intake of soft drinks
- Smoking cessation techniques
- Alcohol use including intake of beer, wine and spirits
- When to seek medical attention
- Associated comorbidities
- Managing acute attacks
- Pain management
- Weight management
- Pathophysiology of the disease
- Medication management
- Exercise

- Provide written education materials for patient/family/caregivers to review after discharge

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## ED Acute Gout Order Set ACTION

### Order Set Development and Implementation Considerations

The intent of this Order Set Development and Implementation Considerations section is to provide additional information for Order Set Committees and/or Order Set leads when implementing this order set locally. This section is not designed to be included in the actual order set and can be removed if needed.

### Patient Care Considerations

- **Acute Flares:** Acute flares of gout should be treated within the first 24 hours of onset of attack. Patients should be educated to self-medicate at the first warning symptoms.
- **Cold Therapy:** Using ice on the affected joint can provide patients with comfort and pain control. Applying ice on the affected area for 20 to 30 minutes several times a day is recommended <sup>(4)</sup>.
- **Diet Restrictions:** Diet adjustments can help reduce the amount of uric acid in the system that can lead to the formation of crystals which lead to acute flare. Gout diets should include vegetables, an increased intake of water, low fat dairy products and vitamin C.
- **Medications:** Thiazide, thiazide-like and loop diuretics can increase serum urate levels <sup>(5)</sup>.
- **Monitoring Serum Urate:** Serum urate should be continually monitored on an ongoing basis to detect if the patient's treatment is effective. It is recommended to monitor serum urate after a flare has subsided and then every six months. Once target serum urate (360  $\mu\text{mol/L}$  or lower)<sup>(2)</sup> has been reached, monitoring every six to twelve months is recommended to ensure continuing adequate adherence and management.
- **Patient Co-morbidities:** Gout is associated with a number of comorbidities such as hypertension, diabetes mellitus, ischemic heart disease, kidney disease and obesity. It is important to be aware of comorbid conditions and the therapies used to treat them as they can have an impact on the treatment options for gout <sup>(6)</sup>.
- **Pharmacological Treatment:** Not all patients will require pharmacological urate lowering therapy. Any patient diagnosed with an established diagnosis of gouty arthritis and: tophus or tophi by clinical exam, greater than/equal to 2 attacks per year, chronic kidney disease stage 2 or worse (GFR less than/equal to 89  $\text{mL/min/1.73 m}^2$  in association with abnormal urinalysis; or GFR less than 60  $\text{mL/min/1.73 m}^2$ ), or past urolithiasis should be considered for pharmacological prophylaxis <sup>(5)</sup>.
- **Psychiatry Consult:** It is common for gout to be aggravated by stress. Implementing screening strategies which can reduce anxiety and stress may reduce acute attacks of gout and improve patient treatment outcomes.
- **Rheumatology/Nephrology Consult:** Specialists should be included in the care of patients with gout. This can improve the success of management goals and allow for treatment success.

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**ED Acute Gout Order Set** ACTION

**References**

Key References <sup>(2; 3; 5-7)</sup>

All medications have been reviewed using Lexicomp and Compendium of Pharmaceuticals and Specialties (eCPS).

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