

## MEDICATION INFORMATION FOR PHYSICIANS

**Generic Name: SODIUM AUROTHIOMALATE**

**Brand Name: MYOCHRYSINE**

<b>Indications</b>	Rheumatoid Arthritis, persistent polyarthritis, erosive psoriatic arthritis
<b>Contraindications</b>	<p>Blood dyscrasias – risk if unable to recognize development of gold toxicity</p> <p>Baseline proteinuria – risk if unable to recognize development of gold toxicity</p> <p>Renal failure – risk of drug accumulation and toxicity</p> <p>SLE – increased risk of toxicity</p> <p>Previous myelotoxic reaction to gold</p>
<b>Monitoring Laboratory Tests</b>	<p><u>Baseline:</u></p> <ul style="list-style-type: none"> <li>• WBC with differential</li> <li>• Hemoglobin</li> <li>• Platelet count</li> <li>• Creatinine</li> <li>• ESR</li> <li>• Rheumatoid Factor</li> <li>• Urinalysis – routine &amp; microscopic</li> </ul> <p><u>Routine:</u> CBC, platelets &amp; urinalysis</p> <ul style="list-style-type: none"> <li>• Weekly for 4 weeks</li> </ul>

- Q 2 weeks                    until 20 weeks
- Q 3 weeks                    until 52 weeks
- Q 4-8 injections            after 52 weeks

ESR – done every other hematology

**Dosage**

**Dosing regimens**

- Week 1                            10 mg
- Week 2                            25 mg
- Weekly                            50 mg – until RA is optimally controlled or side effects develop
- Q 2 weeks                        When optimal control is achieved

➤ For patients on an ACE inhibitor & unable to change to another antihypertensive modify the initial gold regimen by using a weekly dose schedule of 10, 15 & 25 mg IM once weekly. Do not go above 25 mg/week. Refer to Nitritoid Reactions.

**How it is taken**

- By intramuscular injection (buttock) one day per week.
- May be self-injected into thigh muscle
- Supplied in 10, 25 and 50 mg/1 ml ampoules.

**Managing Side Effects**

**Mucocutaneous Reactions**

- Pruritus, commonly precedes rash (30%).  
Common sites are behind or in ears, in axillae, groin, antecubal, or periorbital areas.
- Skin rash (30%)
- Mouth sores – on tongue, gums or inner cheeks (20%)
- Metallic taste
- Vaginal burning or itching
- Hold gold until above side effects subside and reintroduce at 50% the previous dosage.
- If side effects recur, discontinue again and resume at 50%

the previous dosage.

- Following this protocol, gold may be administered to sensitive patients at doses as low as 2 mg weekly. If weekly 2 mg causes side effects, give gold at 2 – 6 week intervals.
- Topical therapy for itchiness or rash are Aveeno bath treatment (100% natural colloidal oatmeal), & various anti-itch creams (Benadryl, Aveeno or Hydrocortisone).
- Severe generalized rash may require prednisone for 1 to 3 weeks.
- Antihistamines, such as Benadryl 25 – 50 mg every 4 to 6 hours prn may be required.
- Therapy for mouth sores are mouth rinses with warm water and salt; Orabase non-prescriptive protective ointment; and by prescription Oracort or Topsylin gel may be required.

#### **Post injection arthralgia/flare**

- Usually occurs within 1 – 2 days following an injection.
- Appears to be dose related and typically occurs very early in gold therapy.
- Reduce dosage by 50% until reactions no longer occur, then may titrate slowly up as tolerated.

#### **Nitritoid Reactions (4.7%)**

- There is an increased incidence of nitritoid reactions with the use of ACE inhibitors.
- Reactions may occur any time during the treatment course.
- Usually mild and transient, with symptoms including nausea, facial flushing, dizziness and hypotension that occasionally leading to syncope.
- Reduce gold therapy to 50% of previous dosage and observe patient following each injection for at least 3 injections until reactions no longer occur.
- Do not restart or continue gold at more than 25 mg IM once weekly. Also consider changing to another antihypertensive if patient is currently on a ACE inhibitor.
- Refer to Protocol for Management of Nitritoid Reactions

### **Chrysiasis**

- A greying colour of the skin and cornea, has been observed after many years of gold therapy.
- Chrysiasis is increased by sun exposure.
- In patients on long term gold therapy, protection from ultraviolet light is recommended.

### **Proteinuria (2-7%)**

- Occurs in patients usually on gold 50 mg/week.
- Proteinuria of 2% (1 gm/L)
  - hold gold and do 24 hour urine for protein.
  - If proteinuria is > 500 mg/DL/ 24 hours, discontinue gold until proteinuria subsides. May take  $\geq$  3 months.
  - When proteinuria is < 250 mg/DL/24 hours, gold may be safely resumed at 50% the previous dosage.

### **Falling WBC (Leukopenia) (2%)**

- If < 4,000 hold gold and evaluate for potentially confounding factors such as viral illness or Felty's.
- If neutropenia is temporary or non-progressive, gold may be resumed with careful monitoring.

### **Decrease in platelets (immune thrombocytopenia) (1-3%)**

- Occurs typically in the first 6 months of therapy.
- Sudden drop in platelets by 50% of the previous amount is worrisome.
  - Platelets <125,000  $\Rightarrow$  discontinue gold permanently. Evaluate for gold induced thrombocytopenia, which manifests with continuous and exponential fall in platelets leading to petechiae and bleeding complications. Treatment requires prednisone 30 – 60 mg.

### **Pneumonitis**

- Rare, and occurs in < 1 in 1000 patients.
- Manifested by shortness of breath, cough and interstitial pneumonitis on x-ray.
  - High dose prednisone is required.
  - Gold therapy is discontinued permanently.

### **Colitis, Hepatitis**

- Rare, and requires discontinuation of gold permanently.

## **Drug interactions**

### **ACE inhibitors**

- There is a known drug interaction between Gold & ACE inhibitors: increased incidence of nitritoid reactions.
- It is recommended that a patient never be started on ACE inhibitor if considering to start or currently on gold therapy.
- If a patient is already on an ACE inhibitor, an alternative hypertensive should be considered.

## **Precautions**

### **Laser Skin Therapy**

- Disfiguring skin pigmentation can occur following dermatologic, ruby laser therapy specifically, Q-switched laser.

### **Pregnancy**

- Gold therapy is usually stopped when pregnancy is confirmed. It has been used safely during pregnancy and by nursing mothers.

### **Illness/Surgery**

- Gold therapy may be continued safely throughout illness or surgery.

## **Considerations**

- For discussion of any problems related to Gold therapy, please call the attending rheumatologist or phone the gold clinic at the Mary Pack Arthritis Program at 604-875-4111 local 68849.
- Further information is available in the package insert.
- Any unusual reaction should be carefully evaluated and considered a possible gold therapy reaction. Serious reactions can be avoided by holding the gold injections until symptoms subside, and restarting at 50% of the previous dosage of gold if indicated.

## **Referral to the clinic**

Contact the Gold Clinic at 604-875-4111, local 68849 or fax the following documentation to 604-875-4321.

- A completed referral form
- Consultation report and copy of last visit notes
- Recent laboratory tests

