Mary Pack Arthritis Program
895 West 10th Avenue
Vancouver, B.C.
V5Z 1L7

MEDICATION PROTOCOL FOR PHYSICIANS

Generic Name: **SODIUM AUROTHIOMALATE**

Brand Name: **MYOCHRYSINE**

Indications

Rheumatoid Arthritis, persistant polyarthritis, erosive psoriatic arthritis

Contraindications

Blood dyscrasias – risk if unable to recognize development of Gold toxicity

Baseline proteinuria – risk if unable to recognize development of Gold toxicity

Renal failure – risk of drug accumulation and toxicity

SLE – increased risk of toxicity

Previous myelotoxic reaction to Gold

Monitoring Laboratory Tests

Baseline:

- WBC with differential
- Hemoglobin
- Platelet count
- Creatinine
- ESR
- Rheumatoid Factor
- Urinalysis – routine and microscopic

Routine:

CBC, platelets & urinalysis

- Weekly for 4 weeks
- Q 2 weeks until 6 months
- Q 3 weeks until 1 year
- Q 4-8 injections after 1 year

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 (after 2 years)

Drug interactions

- **Patients on an ACE inhibitors cannot start Gold: they must be switched to an alternative anti-hypertensive** (such as an ARB). Refer to Nitritoid Reactions.

How it is taken

- By intramuscular injection (buttock), once weekly
- May be self-injected into thigh muscle
- Supplied in 10, 25, and 50 mg/1 ml ampoules

Side Effects & Their Management

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 completely resolve, then reintroduce at 50% the previous dosage.

- If side effects recur, discontinue again until side effects resolve, then resume at 50% the previous dosage.
- Following this protocol, Gold may be administered to sensitive patients at doses as low as 1 – 2 mg weekly. If these low doses cause 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 po every 4 to 6 hours prn may be required. Non-drowsy antihistamines such as Claritin or Reactine may also be used.

- Therapy for mouth sores are mouth rinses with warm water and salt; Orabase non-prescriptive protective ointment; and by prescription, Oracort or Topsyn gel.

Post-injection arthalgia/flare

- Usually occurs within 1 – 2 days following the first few injections.
- Appears to be dose related and typically occurs very early in Gold therapy.
- Reduce dosage by 50% until reactions no longer occur, then dose may be titrated slowly up as tolerated.

Nitritoid Reactions (4.7%)

- **Do not start patients on Gold who are currently taking ACE Inhibitors: consider changing to alternative antihypertensive (ARB).**
- There is an increased incidence of nitritoid reactions with the use of ACE inhibitors. These reactions typically occur at Gold doses greater than or equal to Gold 25mg/wk. Reactions may occur any time during the treatment course.
- Occur due to an interfenence with the breakdown of bradykinin. This can potentially result in prolonged hypotension.
- Usually mild and transient, Nitritoid Reactions include nausea, facial flushing, dizziness and hypotension (or any combination) that occasionally leads to syncope.
- In frail patients, or those with underlying cardiovascular disease, these reactions can be serious. Rarely hypotension can lead to cardiac arrest.
- If a suspected reaction occurs, contact Gold Clinic Rheumatologist. Ensure client is not on an ACE Inhibitor.

- Reduce Gold therapy to 50% of previous dosage and observe patient for 20 minutes following each injection, for at least the next 3 injections, until reactions no longer occur.
- 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 ≥ 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 ⇒ 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.

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 thoughout 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