

Medication Management Improvement System Protocol #4 Potentially Inappropriate Use of NSAIDs

Problem: *Use of Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) in clients with any one of the following risk factors for serious peptic ulcer disease:*

- . *age 80 years*
- . *current use of anticoagulant*
- . *current use of oral corticosteroid*

Goal: Inform the physician of client's actual use of NSAIDs, including OTC medications, plus risk factors

Action:

1. Verify accuracy of medications noted in the alert

- ✓ Is the client taking the medications as ordered and listed in the medication list?
 - What dosage are they taking?
 - How often are they taking it?
 - For what:
 - Rheumatoid arthritis vs. osteoarthritis?
 - Type of pain? On a scale of 1-10, with 10 being the worst pain, how much pain are you experiencing most days?
- ✓ Document in MSSPCare medication notes any variation from medication use as indicated by bottles/containers

2. Contact pharmacist per agency procedure

- ✓ Document contact and pharmacist confirmation
- ✓ Pharmacist role is to confirm that NSAID use could be inappropriate (i.e. to review client record so that physician is not contacted if NSAID use is appropriate, for example, in case of rheumatoid arthritis). Pharmacist does not make recommendation to physician.

3. Case conference – develop medication-related care plan

4. Inform the physician

- ✓ Fax medication report (Patient Risk Assessment report), current medication list and pharmacist recommendations to:
 - Primary care physician; *and*
 - Any other prescribers of affected medications

5. Documentation of pharmacist consultation, physician notification, care plan steps

6. Ask client/caregiver about medication changes at each phone call

7. Re-inventory medications at each home visit, including verification of dose & frequency

Enhanced “Gold Standard” Practice:

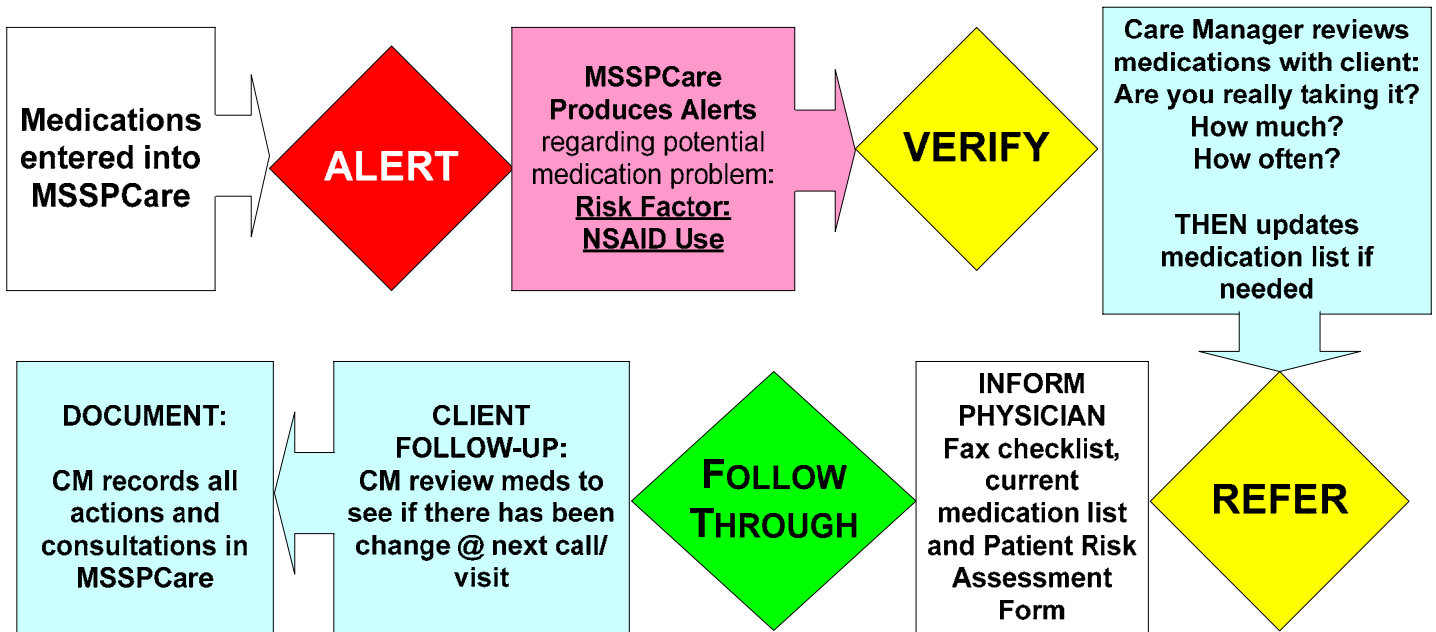
1. Do complete pain assessment (using a pain scale if possible) and document in MSSPCare.

2. Call physician for follow-up instructions – After fax is sent to physician, call to inquire about possible follow-up instructions, e.g. client to see physician, home health to oversee taper, client/caregiver education. Implement instructions and document. Provide pharmacy information

if physician wishes to change medication.

3. Discuss with patient/caregiver (see information below)

- ✓ Discuss result of physician contact and any change to medications “ordered” by physician.
- ✓ When appropriate, discuss potential risks of NSAID use.
- ✓ Suggest alternative methods of pain control. (*see Suggested Non-Drug Treatments below*)
- ✓ Provide written information for client/caregivers - For an excellent source of consumer information about medications, consult the website:
<http://www.nlm.nih.gov/medlineplus/druginformation.html>; for pill identifier tool, see www.drugs.com
- ✓ Document discussion with client/caregiver.



Care Planning and Documentation:

Initiate care plan when MSSPCare produces the alert for NSAID use:

- ✓ Care plan target date for checking with client regarding the recommended change(s) in medications. Document any changes actually made.

Example of Medication Management Care Plan

- Refer to Medication Management program to review medication for risk factors.
- Collaborate with Med. Mgmt pharmacist, MD, and other health professionals as needed.
- Provide Health education on drug interactions, side effects, proper dosing, etc.
- **Goal:** Prevent medication-related adverse events, improve medication management and adherence to prescribed medication regimen.

Suggested Non-Drug Pain Treatments for Osteoarthritis

1. Protecting and Unloading Joints

Hands

- For clothing, use Velcro instead of buttons or zipper. Add a ring or loop to pull zipper. Use a bottom hook.
- Instruct patient to lift objects with both hands.
- Add wedge tubing to pencils and pens. Use adapted eating utensils and plate.

Wrist

- Use a splint.
- Use a lap tray, chair with armrests or over-bed table to provide firm support for upper extremities.

Elbow, Shoulder

- Use pillow.
- Use a lap tray, chair with armrests or over-bed table to provide firm support for upper extremities.

Neck

- Use small pillow to keep head in neutral position.
- In recliner chair, move upper torso back at incline.

Back

- Use firm mattress with pillows between knees and ankles while patient is on side.
- Use lumbar support while patient is seated in chair.
- Instruct patient to use correct technique to rise and lower from chairs or bed.

Hip

- Evaluate patient for cane or walker.
- Use raised toilet seat.

Knee

- During wheelchair use, use leg rests with calf support
- Use knee brace if joints are unsteady to prevent knee from giving way. Use muscle or joint creams or balms. The creams or balms are good for all smaller joints, such as hand, wrist, foot, ankle, and elbow.

Foot and Ankle

- Use shoes with wide toe space which are well cushioned and have low heels.
- During wheelchair use, use footrests at height that will keep knees slightly above hip level. If footrests are not used during wheelchair use, make sure seat height allows feet to rest firmly on floor.

Background Information on Non-Steroidal Anti-Inflammatory Drugs

Facts:

1. The side effects of NSAIDs on the upper GI tract of elderly persons are frequent and serious. They include:
 - Dyspepsia (heartburn, etc.)
 - Ulceration
 - Hemorrhage
2. Elderly persons who use NSAIDs and have at least one of the risk factors listed above (≥ 80 years of age, current use of anticoagulant, oral corticosteroid) are at higher risk of gastrointestinal tract complications. It is estimated that 41,000 excess hospitalizations and 3,300 excess deaths occur each year among elderly NSAID users.
- 2a. Below are some agents used for preventing NSAID-induced GI complications:

H2 receptor blocking agents		Other antiulcer drugs	
Generic Name	Trade Name	Generic Name	Trade Name
cimetidine	Tagament®	misoprostol	Cytotec®
famotidine	Pepcid®	omeprazole	Prilosec®
nizatidine	Axid®	sucralfate	Carafate®
ranitidine	Zantac®	esomeprazole	Nexium®
		lansoprazole	Prevacid®
		pantoprazole	Protonix®
		rabeproazole	Aciplex®

3. Most muscle and joint pain in elderly persons is due to osteoarthritis. Osteoarthritis involves little or no inflammation.* When NSAIDs are prescribed for relief of pain due to osteoarthritis, several important facts should be considered:
 - NSAIDs have a modest pain reduction effect of only 20-30%.
 - Acetaminophen provides about the same amount of pain relief as NSAIDs in many patients.
 - Glucosamine and chondroitin may offer some relief at doses of 1500mg daily.
 - Over the counter analgesic topical creams and non-drug pain relief measures such as joint protection, exercise, and heat/cold therapy if allowed by the MD can be effective measures to reduce pain due to osteoarthritis.

*** Notes from our Geriatric Advisory panel:**

Osteoarthritis can have an acute pain phase occasionally, e.g. a small cartilage or bone spur is chipped off into the joint space, when one can experience inflammatory symptoms. At this time, a short course of NSAIDS can be useful.

Do NOT use both topical creams and hot packs at the same time...the use of these together can burn the skin (8).

References:

1. Griffith MR, Brandt KD, Liang MH, et al. Practical Management of osteoarthritis: Intergration of pharmacologic and nonpharmacologic measures. *Arch Fam Med* 1995; **4**: 1049-1055.
2. Hochberg MC, Altman RD, Brandt KD, et al. Guidelines for the medical management of osteoarthritis: Part I. Osteoarthritis of the hip. *Arthritis and Rheumatism* 1995; **38**: 1535-1540.
3. Hochberg MC, Altman RD, Brandt KD, et al. Guidelines for the medical management of osteoarthritis: Part II. Osteoarthritis of the knee. *Arthritis and Rheumatism* 1995; **38**: 1541-1546.
4. Griffin MR, Piper JM, Daugherty JR et al. Nonsteroidal anti-inflammatory drug use and increased risk of peptic ulcer disease in elderly persons. *Annals of Internal Medicine* 1991; **114**: 257-263.
5. *Tarascon Pocket Pharmacopeia 2004 Deluxe Edition*. Tarascon Publishing 2004.
6. Meredith S, Feldman P, Frey D, et al. Improving Medication Use in Newly Admitted Home Healthcare Patients: A Randomized Controlled Trial. *Journal of the American Geriatrics Society*. 2002;50:1484-1491.
7. Ray WA, Stein CM, Byrd V, et al. *An educational program for physicians to reduce use of non-steriodal anti-inflammatory drugs among community-dwelling elderly persons: A randomized controlled trial*. *Med Care* 2001;39:425-435.
8. The Arthritis Foundation @ www.arthritis.org; “Arthritis Answers” section