PAIN-OSTEO-RHEUMATOID MEDICATION THERAPY

(Osteoarthritis (OA) rheumatoid arthritis (RA))

CATEGORY	DOSE	COMMENTS
analgesics – non-narcotic – OA/RA -		
acetaminophen-APAP (Tylenol)	325mg-4000mg/d	higher than 4g/day->hepatotoxicity
analgesics – narcotic agonists – OA/RA -		
alfentanil (Alfenta)	250-1000ug epidural	not likely to be used in post acute care
codeine (Tylenol #2,3,4 (APAP))	15-60mg 6x's/day	APAP max of 4gm/day, constipation
fentanyl (Duragesic)	25-400ug/day	skin irritation, expensive
hydrocodone (Vicodin (APAP), Norco(APAP))	8 tabs/d	APAP max of 4gm/day,
hydromorphone (Dilaudid)	1-36mg/day	short length of action, good for low renal
meperidine (Demerol)	50-150 q4 IM prn	poor for chronic pain, confusion
methadone (Dolophine)	5-80mg/day	PO, IM, SQ,, long acting
morphine (MS-Contin, Roxanol)	1->500/day	PO, IM, SQ, nausea, delirium
oxycodone (Oxy-Contin, Percocet (APAP), Percodan (ASA))	12/day	good for moderate pain only
propoxyphene (Darvon, Darvocet (APAP), Darvon Compound (ASA))		worthless-placebo effect
sufentanil (Sufenta)	epidural	not likely to be used in post acute care
tramadol (Ultram)	25-300mg/day	expensive, lower abuse potential
analgesics – narcotic agonist-antagonists – OA/RA -		
buprenorphine (Buprenex)	0.3-0.6 IV/IM qid	caution in elderly, ALL-idiosyncratic
butorphanol (Stadol)	1-3mg q6 prn	nasal spray, IM, IV,
nalbuphine (Nubain)	10mg q4 prn	IV, IM, SC, watch for opiate withdrawal
pentazocine (Talwin)	600mg/day(12 tabs)	does not work for all patients
salicylates – analgesic and anti-inflammatory – OA/RA -		
aspirin (ASA) (Exedrin, Bayer)	81-4000mg	GI upset limits dose, tinnitis
choline salicylate (Arthropan)	435-5300/day	no great claims of success
choline-magnesium salicylate (Trilisate)	0.5-1gm tid	claims of less GI upset than NSAIDs
diflunisal (Dolobid)	500mg 2-3 xs/day	minimal antipyretic effect
magnesium salicylate (Doans, Momentum)	600-4800/d	OTC
salsalate (Disalcid)	500-1000 2-3xs/day	claims of less GI upset than NSAIDs
non-steroidal anti-inflammatory drugs (NSAIDs) – OA/RA -		
diclofenac (Voltaren)	50 tid	enteric coated
etodolac (Lodine)	200-400 q6	not as effective for RA as other NSAID
fenoprofen (Nalfon)	300-3200mg/day	fallen from common use
flurbiprofen (Ansaid)	50qid,100bid,max 300	"A(nother)"NSAID
ibuprofen (Motrin, Advil)	200-800mg, max 1200	first, effective, standard
indomethacin (Indocin)	25-200mg/day	highest rate of GI problems, supp avail
ketoprofen (Orudis)	25-50 q6, max 300	>5omg/dose no more effective than 50
ketorolac (Toradol)	10mg q4, max 40/day	PO, IM, IV, 5 day max for tx,
mefenamic acid (Meclomen, Ponstel)	50-100q4, max 400/d	undistinguished
meloxicam (Mobic)	15mg/day	newest "on the block"
nabumetone (Relafen)	1000qd-bid, 2000 max	newer, effective, less GI?, prodrug
naproxen (Naprosyn, Anaprox)	250-500mg tid, 1250	Aleve, effective, standard for class
oxaprozin (DayPro)	1200/day, 1800/d max	qd dosing,
piroxicam (Feldene)	10-20mg/day	qd dosing, high GI problem history
sulindac (Clinoril)	150-200 bid, 400 max	good history
tolectin (Tolmetin)	400mg tid, 2000 max	moderate-minimal hx of use

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cox-2 inhibitors – OA/RA -		
celecoxib (Celebrex)	100-200 bid	less GI effects than NSAIDs
rofecoxib (Vioxx)	12.5-25 qd	50mg qd for no more than 5 days
biphosphonates – OA - bone resorption inhibitors		
alendronate (Fosamax)	10/day, 70/wk	high rate of esophageal ulceration
etidronate (Didronel)	400mgqdx2 wks, then off 11 weeks	original product
pamidronate (Aredia)	only IV form in US	
risedronate (Actonel)	5mg/d	take 30" AC breakfast, sit up until BRFK
tiludronate (Skelid)	40mg qd x 3 months	(indicated for Paget's dx only)
hormonal – OA – slows bone loss		
calcitonin (Miacalcin)	1 spry qd	store upright, bottle lasts only 2 weeks
calcitriol (Rocaltrol)	0.25 bid	for persons on chronic corticosteroid tx
ergocalciferol (Drisdol)	400-10,000u/day	should be on calcium also
selective estrogen receptor modulator (SERM) - OA – slows bone loss		
estrogen (Premarin)	0.3-1.25mg/day	medroxyprogersterone also suggested
raloxifene (Evista)	60mg/day	similar effect to estrogen tx
tamoxifen (Nolvadex)	10mg bid	non-approved use
gold – RA – not well defined: interfere with antigen processing by macrophages, …		
auranofin (Ridaura)	3-9mg/day	bleeding, usually tolerated for limited time
aurothioglucose (Solganal)	25mg/wk IM, max 1gm	as with Ridaura
disease modifying antirheumatic drugs (DMARD) – RA – varying mechanisms		
azathioprine (Imuran)	1-2.5mg/kg/day	watch for infections
chlorabucil (Leukeran)	0.1-0.2mg/kg/day	hematologic
chloroquine (Aralen)	250mg/day	hematologic
cyclophosphamide (Cytoxan)	50-100mg/day, max 2.5	hematologic
cyclosporine (Neoral)	3mg/kg/day, max 5mg	elevated LFT
hydroxychloroquine (Plaquenil)	200-600mg/day	macular damage
leflounomide (Arava)	10mg/d x 3 days, then 20mg qd	l GI, elevated LFT
methotrexate	7.5/w, or 2.5 bid tiw, max 20mg/wk	l elevated LFT, pulm fib
minocycline (Minocin)	100mg bid	decreased joint swelling
mycophenolate (CellCept)	250-2000mg/day	infections
penicillamine (Cuprimine)	125-250/day, max 1.5	myelosupression, new auto-immune
sulfasalazine (Azulfidine)	500-2000mg/day	myelosupression, hepatotoxicity
cytokine antagonists		
monoclonal antibody – RA – targets tissue necrosis factor (TNF)		
infliximab (Remicade)	3mg/kg IV, repeat 2, 6, weeks thereafter, then every 8 weeks	
dimeric fusion protein – RA – competes at receptor with TNF		
etanercept (Enbrel)	25mg SQ BIW	higher incidence of infections
lipoxygenase inhibitor – RA - limits leukotriene production		
zileutin (Zyflo)	800mg bid	not FDA approved for RA