Analgesics Fact Sheet

Acetaminophen	Non-Steroidal Anti-Inflammatory Analgesics (NSAIDS)	Opioids	Antiepileptics	Antidepressants	Corticosteroids

When to Use:

- Indicated for **mild to moderate somatic and visceral pain** as a single agent or combined with an opioid
- Treats fever, headache, muscle and general pain
- Oral, liquid, rectal and intravenous formulations
- Does not affect platelets

When to Avoid:

- Should NOT be used in patients with liver impairment. MONITOR LIVER TESTS
- Narrow therapeutic ratio: Patients should be cautioned and should NOT use more than 4 gram/day (=8 extra strength tablets per 24 hours) WITH close monitoring or 3 gram/day unmonitored. NOTE: 2 extra strength 500 mg acetaminophen (Tylenol) tabs every 6 hours=4 grams. MINOR increases above recommended doses pose serious risk of hepatic necrosis and death

NOTE: Has no anti-inflammatory properties

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When to Use:

- Indicated for **mild to moderate visceral and somatic pain** as a single agent or combined with an opioid
- Indicated when treating inflammatory states in the musculoskeletal system
- Oral, liquid, topical and intravenous formulations

When to Avoid:

- Bleeding risk, particularly to the gastrointestinal tract
- In combination with other anticoagulants such as warfarin or enoxaparin (Lovenox)
- Low platelet count
- Renal dysfunction
- Diabetes -high risk of renal dysfunction and failure
- Elderly with creatinine clearance under 30ml/min (common in people over 75 years of age)
- Congestive heart failure (additive cardiotoxicity and risk of renal failure)
- If patient is already on corticosteroids (increased bleeding risk with no increase in efficacy)

Increased risk of toxicity can occur in the following situations:

- Higher dose and longer therapy
- Elderly and medically frail patients
- Patients with renal insufficiency
- Patients with prior gastritis, other gastrointestinal bleeding
- Patients on anticoagulation

Long-term use must be weighed in terms of benefit vs. potential risk.

NOTE:

- No NSAID has greater analgesic efficacy or safety profile than any other NSAID
- Celecoxib is the only remaining Cox-2 inhibitor on the U.S. market and has not be demonstrated to have greater analgesic efficacy or safety than other NSAIDs

Acetaminophen	Non-Steroidal Anti-Inflammatory Analgesics (NSAIDS)	Opioids	Antiepileptics	Antidepressants	Corticosteroids

When to Use:

- Indicated for **moderate to severe pain** as a single agent or combined with acetaminophen or NSAIDs
- Effective across all **3 pain types (somatic, visceral, and neuropathic)**
- Mainstay for treatment of moderate to severe cancer pain
- Oral, liquid, transbuccal, transdermal, rectal, subcutaneous, intravenous formulations
- Does not affect platelets, renal function, liver function, gastric mucosa

When to Avoid:

- Long-term use of opioids in persistent non-cancer pain without underlying serious illness (e.g. fibromyalgia, chronic low back pain) should only be considered under the supervision of a pain specialist

Key Provisos:

- Drug choice and dosing adjustments are necessary in patients with underlying organ dysfunction (kidney, liver)
- Side effects are manageable for most patients (constipation, nausea, sedation)
- Should be tapered when discontinued

Acetaminophen	Non-Steroidal Anti-Inflammatory Analgesics (NSAIDS)	Opioids	Antiepileptics	Antidepressants	Corticosteroids

When to Use:

- Indicated for **moderate to severe neuropathic pain** as a single agent or combined with other synergistic drugs, including gabapentin and pregabalin
- Mainstay for treatment of neuropathic pain though evidence is mixed
- Oral formulations only
- Side effects are manageable for most patients

Key Provisos:

- Dose adjustment in patients with renal failure or renal insufficiency (elderly) for gabapentin and pregabalin
- Can cause sedation, confusion, ataxia, edema
- Drug-drug interactions are generally well-tolerated

Acetaminophen	Non-Steroidal Anti-Inflammatory Analgesics (NSAIDS)	Opioids	Antiepileptics	Antidepressants	Corticosteroids

When to Use:

- Indicated for **moderate to severe pain** as a single agent or combined with other synergistic drugs
- Mainstay for treatment of **neuropathic pain and mood disorders**
- Includes tricyclic antidepressants and serotonin-norepinephrine reuptake inhibitors (SNRIs)
- Oral formulation only

When to Avoid:

- Tricyclic Antidepressants: caution in older patients and those with underlying cardiac disease; anticholinergic side effects include QT prolongation, sedation, delirium, constipation, urinary retention and orthostasis.

NOTE: Selective-serotonin reuptake inhibitors (SSRIs) have not been shown to relieve pain.

Acetaminophen	Non-Steroidal Anti-Inflammatory Analgesics (NSAIDS)	Opioids	Antiepileptics	Antidepressants	Corticosteroids

When to Use:

- Indicated for **moderate to severe somatic and visceral pain** as a single agent or combined with other synergistic drugs
- Includes dexamethasone (long-acting) and predninsone
- Widely used as a multipurpose analgesic including: bone pain, capsular pain (e.g. liver capsular stretch pain). Headache (raised intracranial pressure), bowel obstruction (due to tumor compression), although evidence base is limited
- Evidence supports the use of corticosteroids for improved appetite, well-being and fatigue
- Oral, liquid, intravenous, rectal subcutaneous, depot intramuscular injection formulations

Serious side effects include:

- Early:
  - Agitation
  - Delirium
  - Hyperglycemia
  - Fluid retention
  - Hypertension
  - Increased risk of infection
- Late:
  - Adrenal insufficiency
  - Myopathy
  - Hyperglycemia
  - GI bleeding
  - Avascular necrosis
  - Osteoporosis and fracture
  - Increased risk of infection

- Should not be combined with NSAIDs-increased risk of GI bleeding with no increase in efficacy