

Drug Management for Vulnerable Individuals

International Association for the Study of Pain



Treatment guidelines for pain management and analgesics prescription for different age groups and disease specificities have been developed worldwide, but specific guidelines for vulnerable patients are still lacking [1,2]. Analgesics used for pain in older patients are the same than in younger persons, but pharmacokinetic and pharmacodynamic changes occur with age or disease and a few reports suggest even greater significant alterations in frail compared to healthy elderly persons.

- Pharmacological treatment of pain in older patients [3,4] is challenging because of comorbidities that necessitate multiple medications (older patients are reported to take between 5 and 10 drugs every day) with potential interactions and with the risk of inappropriate medication prescription in approximately one in five prescriptions.
- The challenges are further amplified in the presence of frailty and impaired cognition that may impact on the pharmacokinetics and pharmacodynamics of analgesics in this population and increase further its heterogeneity. Pain is more difficult to assess and treat in patients with dementia, as they have difficulty expressing pain, analgesics can exacerbate cognitive impairments, and pain expression can be falsely diagnosed as dementia-related neuropsychiatric symptoms.
- The most significant pharmacokinetic alteration encountered in older and frail patients is decreased renal function, which is very frequent with aging and renally cleared medications often have a longer half-life.
- The commonest side effect of all analgesic medications is neuro-psychological, especially in long-term care settings. Evidence for adverse events (AEs) of opioids and other drugs (antidepressants, anticonvulsants) has been well documented, and the concomitant administration of several CNS-acting drugs further increases the risk, as has been shown for falls.
- Polypharmacy should be hierarchized in order to avoid AE and drug-drug interactions that are very common in the elderly.
- In addition to pharmacological pain treatment, non-pharmacological approaches should always be used for a synergistic therapeutic benefit and to reduce the number and dose of medications.
- The risk for adverse effects and toxicity from medications is exponential with a higher number of medications. As a rule, one should always make sure that all prescribed medications are necessary and well tolerated. Those who are not should be discontinued.
- When prescribing an analgesic to an older patient, a frequent reassessment of the indication and of the presence of AE should be done, and the analgesic discontinued if risks outweigh



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benefits.

- When selecting an analgesic drug, one should always favor those with the least toxicity, e.g. acetaminophen (paracetamol), which can be given regularly for constant pain.
- Non-selective anti-inflammatory drugs (NSAIDs) should be used with caution, at the lowest available dose for the shortest period possible and for inflammatory diseases, because they are associated with a frequent occurrence of adverse effects.
- Using several analgesics at a lower dose often provide better analgesia, with less AE. For example, prescribing an antidepressant with analgesic properties (e.g., duloxetine, milnacipran) can treat both pain, depressive symptoms and anxiety.
- Anticonvulsants with better efficacy/risk ratio such as gabapentinoids (pregabalin, gabapentin) should be used as first-line therapy for neuropathic pain.
- Anticholinergic agents such as tricyclic antidepressants (e.g., amitriptyline) should be avoided because of their frequent AE (confusion, arrhythmias, falls).
- As for all patients in pain, opioids can be used in the presence of severe pain interfering with function and quality of life. The opioids usually recommended for use in older patients are oxycodone and hydromorphone, which accumulate less in renal failure (frequent in older patients) than morphine and codeine.
- When using a dual mechanism agent such as tramadol, one should be specific attention to drug-drug interactions with concomitant medications.
- Sustained-release or long-acting opioids should only be prescribed in patients already treated with a similar dose of a short-acting opioid, to avoid respiratory depression in opioid-naïve patients.
- Whichever medication is prescribed, it should be initiated at the lowest available dose and titrated slowly, with frequent reassessment of the analgesic efficacy and AE.
- General recommendations support a more tailored approach based on an optimization of treatment and an anticipation of potential medication-related problems (falls, hospitalization). However, pain treatment in vulnerable persons with cognitive disorders, communication problems or dementia represents a real challenge for a number of reasons: pain assessment is particularly difficult in this population, titration of action and dosage finding are cumbersome, behavioural and psychological symptoms of dementia are easily confused with pain, psychotropic drugs are frequently associated with cognitive adverse effects such as delirium. However, despite these challenges in treating pain in vulnerable patients, special attention should be given not to ignore or undertreat pain, as is unfortunately too often the case.

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