



Age Specific Drug Therapy

Patient Case A

The PipelineRx pharmacist received an order for Ibuprofen 600mg TID (three times a day) for a geriatric patient. Ibuprofen is a Nonsteroidal Anti-inflammatory Drug (NSAID) and is used for mild to moderate pain due to inflammatory conditions. An NSAID is not recommended for use in the elderly due to its increased risk of gastrointestinal irritations, ulceration and perforation. This patient is also on solumedrol which is a steroid that can further cause gastrointestinal adverse events. The PipelineRx pharmacist called and discussed the therapy with the patient's physician. The PipelineRx pharmacist recommended a safer NSAID than ibuprofen, like indomethacin (Indocin). Since the patient is also on Lovenox, a blood thinner for clot prophylaxis, the PipelineRx pharmacist also recommend to the physician to start their patient on omeprazole (Prilosec). Omeprazole will decrease the stomach acid thus working as a gastrointestinal protectant in a patient that is on an NSAID and blood thinner to prevent stomach irritation and ulceration. The patient's prescribing physician accepted both PipelineRx clinical recommendations.

Patient Case B

An order was written for meperidine (Demerol) 25mg IM (Intra-muscular injection) q6hrs (every 6 hours) for an 87-year old man with renal dysfunction. Meperidine is an opioid, a controlled substance and it is being used for moderate to severe pain. The PipelineRx pharmacist called and spoke to the patient's physician and advised against giving meperidine to a geriatric patient with impaired kidneys. The recent American Pain Society and the Institute for Safe Medication Practices (ISMP) recommend avoid using meperidine for pain control, especially in the elderly and in patients with renal dysfunction. Meperidine is broken down in the body to form normeperidine which is an active metabolite (byproduct) of meperidine. Normeperidine is a CNS stimulant and can trigger anxiety, tremors, or seizures in cumulative doses. Geriatric patients, especially one with impaired kidneys will not be able to excrete the drug and its byproduct and will result in drug accumulation. The patient's physician accepted the PipelineRx pharmacist's clinical recommendation to change the order to morphine PRN (as needed) instead.

Patient Case C

The PipelineRx pharmacist received an order for Beclomethasone (Qvar) 80 mcg to be inhaled twice daily for an 11-month old baby. Beclomethasone is a corticosteroid used as an inhalant for asthma. The PipelineRx pharmacist paged and spoke with the prescribing physician to clarify the dose since it was too high for the 11-month old baby. The physician stated that the dose was being recommended by the pulmonologist thus order as such. The PipelineRx pharmacist highly recommended for the physician to double check with the treatment team to ensure that the dosage was correct. Dose of 80 mcg twice a day is normally an initial dose for an adult with asthma. If this high dose were to be given it may cause adrenal insufficiency and reduce growth in this 11-month old baby. The American Pediatric Association recommends using the lowest effective dose of inhaled corticosteroid as possible to minimize system effects. The dose should only be 40 mcg twice daily for this baby. The physician re-consulted with the pulmonology team and re-entered the dose as 40 mcg twice daily as recommended by the PipelineRx pharmacist.