

# [Polypharmacy major drug interaction. potential drug-drug interactions](https://assignbuster.com/polypharmacy-major-drug-interaction-potential-drug-drug-interactions/)

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Polypharmacy is the practice ofadministering many different medicines especially concurrently, for thetreatment of a single disease.

It can also be defined as the concurrent use ofmultiple medications, usually more than five and potentially clinicallyinappropriate, to treat usually co-existing conditions, which may lead todrug-drug interaction. 12Drug-drug interaction is a situation inwhich a drug affects the activity or is affected by another drug, whenadministered together. This maybe synergistic, antagonistic, or may produce anew effect which neither drug produces alone.

Therefore, drug-drug interactionshave a higher probability of occurrence in patients with polypharmacy. The elderly population of India isestimated at 104 million, 53 million females and 51 million males; and iscontinuously increasing. 3 This figure is expected to rise to more than 300million, constituting 20 per cent of India’s total population, by 2050. Commonmorbidities faced by the elderly include hypertension, arthritis, osteoporosisand diabetes mellitus among others. Most of these co-exist with othermorbidities. Prevalence of polypharmacy is also mostlyobserved among the elderly. Internationally, almost 40 per cent of the elderlyliving in their own homes. 4 In India, too, polypharmacy is widely prevalent, and, predictably, much more so in case of elderly individuals.

A study doneamong 814 patients in two teaching hospitals showed that among the elderly, systemic anti-bacterials were the most commonly prescribed therapeutic class ofmedications and pantoprazole was the most commonly prescribed medication. Themedications were prescribed in 30 per cent of the cases when these were notindicated. 5   Among adults older than 55, numbers suggestaround 4 per cent are taking medication and/or supplements that puts them atrisk of major drug interaction.

Potential drug-drug interactions have increasedover time and are more common among the low educated elderly.