**CLINICALLY RELEVANT INTERACTIONS BETWEEN CARDIOVASCULAR DRUGS, HERBALS AND FRUIT JUICES: MECHANISMS OF INTERACTIONS AND PRESCRIBING STRATEGIES**

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Clinically important adverse interactions have occurred in humans when cardiovascular drugs are taken along with herbal remedies and fruit juices. Simultaneous oral intake of a wide variety of drugs with grapefruit/pomegranate juices or herbal remedies (St. John’s Wort) can affect the safety and efficacy of drugs by pharmacokinetic (PK) and pharmacodynamic (PD) alterations. The interactive effects may be additive, synergistic or antagonistic in nature, and may complicate the dosing regimen of short- and long-term medications. Drug-herb/juice interactions may be significantly important for drugs with a narrow therapeutic range (warfarin, digoxin, antiarrhythmics), and for sensitive populations like elderly and frail patients, pregnant and nursing mothers or very sick individuals (AIDS and cancer patients), who may be exposed to polypharmacy. Multiple ingredients present in plant-derived remedies may modify the intestinal pH or motility, inhibit or induce gut transporters (P-glycoprotein) or metabolizing enzymes (CYP450-isozymes), glucuronidation pathway, and thus change the rate and extent of bioavailability, PK and PD of drugs. As self-prescribing popularity of herbal remedies, fruit juices and dietary supplements is growing, physicians should inquire before prescribing, whether their patients are consuming any interacting juice or herbal product and either instruct their patients to stop consuming such products or adjust drug dosage to compensate for drug-herbal/juice effects. Collaborative efforts are required from patients, physicians, drug industry, suppliers of herbal remedies and fruit juices to minimize or possibly prevent any potential risks associated with the concomitant use of botanical products and interacting drugs. Post-marketing surveillance is also needed to determine potential drug-herb-juice interactions