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EDITORIAL

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Drug Interactions

The Pharmaceutical Society of South Africa has recently sponsored the publication of a *Guide to Drug Interactions*. This interleaved book will be of great value to members of the pharmaceutical and medical professions, and should be available to all pharmacists and doctors. An updating service will be offered to users of the handbook to keep the user abreast of new interactions as new information becomes available.

A drug interaction occurs whenever the diagnostic, preventive or therapeutic action of a drug is modified by another drug, or it may be some other substance in the diet or in the environment that has entered the body. Although dramatic and unintended interactions are attracting most attention, it is well known that there are many therapeutically useful interactions. Thus drug interactions are deliberately sought when isoniazid and sodium aminosalicylate are given together in the treatment of tuberculosis or when nalorphine or naloxone are given to counteract the respiratory depression produced by morphine.

An adverse drug interaction occurs when the action of a prescribed drug is potentiated, inhibited, or otherwise modified by another agent, so that an unfavourable response to the drug is elicited. It is not always easy to avoid unsafe combinations of drugs. A drug may so sensitise a patient that long after it has been withdrawn an interacting drug may elicit a severe reaction. Anaesthetists, among others, must be particularly alert to this possibility. Some drugs adversely interact with a large number of other drugs. Particularly well known in this regard are the oral anticoagulants, monoamine oxidase inhibitors, barbiturates, and certain antibiotics. Adverse interactions may also occur when the action of a drug is altered by substances other than medicines; these include certain foods, pesticides, and agents that may modify drug receptors, enzymes and tissues in such a way that medicines then produce undesirable effects. In one manual on drug interactions the table of drug interactions extends over more than 400 pages, and there are many sections dealing with incompatibilities, contra-indications and adverse effects.[1]

The mechanisms of drug interactions are numerous: they may occur during the stages of the passage of a drug through the body—intake, distribution, action, transformation and excretion. Details are available in a number of textbooks and in recent volumes dealing especially with the problem of drug interactions.

The frequency with which therapeutic and other types of incompatibilities occur may be reduced if multiple drug therapy (polypharmacy) is prescribed rationally and only when essential. The number of possible drug interactions increases substantially, at times exponentially, as the number of drugs received by a patient in a given period increases. Many drug firms market drug combinations, but doctors often risk the possibility of causing drug interactions. This has been repeatedly demonstrated in hospital studies. Even though patients are under close medical observation, they may still receive dozens of drugs during a few weeks of hospitalisation.

All possible interactions and their causes must be carefully considered before a medicine is prescribed, so that harmful effects may be avoided and therapeutic benefits exploited. Some knowledge of the pharmacological basis of how one drug may

change the action of another is essential. Physicians must be informed on all possible interactions, both desirable and undesirable, that are liable to occur. This is difficult because new interactions are constantly being reported in the literature. It follows that the longer a drug has been in use the lower the probability that any new adverse effect will be reported. Conservative doctors who prescribe only those drugs that have been widely used will more likely avoid adverse reactions and achieve beneficial responses only.

The average practitioner does not have time to study all the adverse drug data reported in the literature, nor does he have access to much of the research data that is available. There are numerous journals and special publications which provide information on drug interactions. The physician who consistently follows a few of these publications will usually be able to anticipate the most serious drug interactions.

1. Martin, E. W. (1971): *Hazards of Medication*. Philadelphia: J. B. Lippincott.

Hospitaalkakofonie

Sommige mense het na hul vakansie 'n periode van rus nodig om tot verhaal te kom; ander weer na hul verblyf in party hospitale benodig 'n periode van herstel. Dit is so weens baie redes, een van die belangrikste waarvan die nimmereindigende geraas is wat min siekes snags slaap en bedags onversteurde rus gun. Die doel van die pasiënt se verblyf inagnemend is hierdie verskynsel teenstrydig.

'n Groot bydrae tot die onmusikale klankvolheid spruit uit die kontruksie van die gebou met weerklankende hol gange en lokale, asook die afwesigheid van klankdempende tapyte en behangsels wat kiemvryheid mag benadeel. Die meeste van die ander lawaai en rumoer is egter oorbodig, en dien as 'n verwyt teen oorwerkte stembande en apparate wat onnodig luid rondkletter; en beide is grootliks vermybaar.

Verpoos 'n tydjie in 'n hospitaal en hoor hoe druis dit teen. Te min dokters is bewus van hoe luid hul soms 'konsulteer' of hoe 'n dienskamer teesessie kan weerklink; verpleegsters is soms te bedrywig om hul sopraan aansêery minder skel te maak, en gisteraand se rolprent elders te gaan bespreek. Die klerke se swaar swart skoene kan sagter die tonnels afmarsjeer met rubberhakke. Die familie wat luidrugtig die kleur van niggie se trourok om die siekbed kritiseer en die kroniese hospitaal-loseerders wat besitlik klankruimte eis, vererger dinge nog meer. En hoe pasiënte toegelaat kan word om elkeen sy eie radio, en selfs bandopnemer, sonder 'n oorstuk te gebruik verbaas enigeen wat 'n saalomgang maak, veral tydens die uitsending van 'n rugbywedstryd.

Die ander groot bydrae kom van die geroesemoesende apparate met die aartsskelms steeds die dienswaentjies en trollies. Met knetterende metaalblaaie en sonder rubber of kurk klankdempers, dreun hulle te vinnig op onge-oliede te-klein-wikkelende wiele stamperig rond. Voeg by die gesnor van 'n paar ongepensioneerde poleerders en drie praatsiek skottelgoedrondgooiers in die oopdeursykombuisie, asook die rommelende hysbakke en klappende deure, en die simfoonlose kakofonie hoef vir geen eerste verdieping van enige derderangse hotel terug te staan nie.

Die meeste van hierdie wanklanke is afkomstig van mense wat selfsugtig deur die lewe klater en hul teenwoordigheid uitbasuin, en die oplossing skyn dus redelik eenvoudig en voor die hand liggend te wees. En verwaarloosde apparate kan met minder geweld en 'n bietjie meer olie meer oordeelkundig gebruik word.

Indien elkeen sy omgewing aandoen en dan agterlaat soos hy dit verkieslik self sou wou vind sal pasiënte in hospitale as 'n byvoordeel ook meer rus en sonder pille kan slaap.