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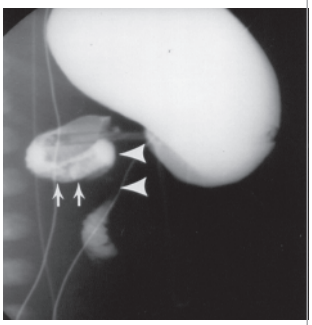

Cover Picture:
Lateral views obtained during an upper GI examinaion.
*(Refer to page 325-328)*

**Editorial**

# Minimising Polypharmacy – a Challenge in Palliative Care

**C R Goh**

Polypharmacy is a practice that doctors have always been taught to avoid right from undergraduate days. Not only are there dangers from drug interactions, but concurrent use of more than one or a few drugs increases cost, as well as the chance of adverse drug effects, and decreases patient compliance with medications.

Patients receiving palliative care often provide therapeutic challenges. All of these patients have advanced disease, most commonly metastatic cancer. Several organ systems are often affected - bones, lungs, and more challenging from the drug handling and drug metabolism viewpoint, the liver and the kidneys. The number of symptoms that have to be treated range from an average of five at presentation to a palliative care service, to nine by the end of life[1,2]. A large proportion of patients may be in the older age group, which has a higher prevalence of cancer, and who are at higher risk of co-morbidities, such as cardiovascular disease, diabetes and impaired renal function. While polypharmacy may not be totally avoidable, it is appropriate for N Y Koh and W H Koo, in their article in this issue, to ask the question: Polypharmacy in Palliative Care: Can it be reduced?[3].

The local data on drug use in palliative care patients in Singapore is comparable to those from units overseas. The median number of drugs prescribed before referral to a palliative care service is five, with little change in that number two weeks after referral[3,4]. The maximum number of drugs prescribed was eleven before referral, found in three out of 345 patients, or 0.87%, and thirteen after referral, found also in 0.87% of patients.

As expected, the commonest drugs prescribed were analgesics (55.7% before and 60.3% after referral), with just under half of the patients on opioid analgesics (41.2% before and 47.8% after referral). Laxatives were the next most commonly prescribed group of drugs (50.4% before and 60% after referral). This reflects a good awareness for bowel care, essential in this group of patients. Laxatives were also the only group of drugs in which there was statistically significant increased usage after referral to a palliative care service.

What was surprising was that the third most commonly prescribed group of drugs was for anti-ulcer therapy (42.6% before and 44.1% after referral). It is inconceivable that the prevalence of gastroduodenal ulceration, or even dyspepsia, in this group of patients is this high, and the high usage likely reflects attempts at gastroprotection, in conjunction with the use of other drugs, such as the non-steroidal anti-inflammatory agents (NSAIDs), whose frequency of usage was 14.8% before and 19.1% after referral, and the use of corticosteroids, such as dexamethasone (frequency of usage not reported). There is now good evidence that

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routine use of antacids and low dose H2-antagonists is unnecessary and ineffective against gastroduodenal mucosal damage by NSAIDs. Only the proton pump inhibitors, for example, omeprazole 20mg daily, or high dose famotidine 40mg twice daily, or misoprostol 200mcg four times daily, have proven efficacy against gastroduodenal injury by NSAIDs[5,6]. It would be good to see whether the correct drugs were used in the appropriate dosage, and whether the guidelines according to high risk groups were followed[5].

While this study looked at drugs prescribed by registered western medical practitioners, including vitamins prescribed as health supplements, it would also be interesting to look at the traditional and complementary therapies that the vast majority of these patients use, in addition to western medicine. These are expected to affect compliance, both by the increase in the total number of pills a patient has to take, and the effect on dosing intervals. Common practices range from traditional Chinese medicines (TCMs) in the form of infusions of herb mixtures, or pre-packaged capsules and potions, to health supplements, such as various antioxidants, shark's cartilage, barley or wheat green, noni juice, and diets, such as the Gerson diet, or macrobiotics. Many patients believe, or are instructed, that a certain dosing interval, for example, two hours, has to elapse between the taking of western medicines and some of these other therapies. This may cause them to abandon western medicines that require frequent dosing, or interfere with analgesic regimes that require dosing at fixed times. Some TCM practices involve the purging of toxins from the system, which sometimes give rise to severe diarrhoea. On the other hand, some of the more gentle purgative effects of TCM may be useful in bowel regulation, and make prescription of laxatives unnecessary, even with concomitant use of opioids.

While the typical stance of western medical practitioners is to frown upon and discourage the use of non-evidence-based traditional therapies, in patients under palliative care, this attitude is unhelpful, and may be counter-productive. When western medicine no longer affords a chance of cure, it is natural for patients to turn to other therapies to help sustain their hope of prolongation of survival, however slim the chance. A non-judgmental stance towards complementary therapies is encouraged, so that the doctor is able to find out what other therapies the patient is on, take into account likely drug interactions and side effects, and advise the patient against the more harmful practices, such as the use of strong purgatives in intestinal obstruction.

In patients with advanced and progressive disease, polypharmacy is often necessary. But good medical practice does require a minimising of the number of drugs used. Doctors need to be aware of the frequency of dosing and the total number of tablets a patient has to take, and their bearing on compliance. Long-acting preparations that allow once daily administration, or different routes, such as transdermal preparations, are helpful. Medicines that are no longer necessary in debilitated patients who are not eating much, such as oral hypoglycaemic agents and anti-hypertensive drugs, need to be stopped. Attention has to be given to the mechanism of action of the drugs, to avoid prescribing drugs with duplicate actions. Awareness of other therapies to which the patient subscribes is also essential.

Palliative care is active, total care of patients with advanced disease, in whom cure is no longer possible, and the goal is achievement of the best possible quality of life. Central to this is the control of symptoms,

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and the maintenance of hope, hope perhaps not of cure, but of a better tomorrow, of freedom from the fear of pain or of intolerable suffering, freedom to enjoy the love of family, or friends, or of the care-givers. The doctor's role is not only to prescribe drugs skilfully, but also to encourage with our presence, and our commitment to provide care, right to the end of the journey. SMJ

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