effects are similar to those of levodopa, but psychosis is more severe and may be more protracted despite withdrawal of the drug. When levodopa fails to control symptoms adding bromocriptine may allow a modest reduction of the dose of levodopa and produce an appreciable benefit in some patients. Intolerance, however, is not predictable—nor is it necessarily related to dosage.

Pergolide is another potent, long acting postsynaptic dopamine agonist.¹⁵ Like bromocriptine it is not effective in patients with primary levodopa failure, but about half the patients with on-off oscillations will derive benefit. Lisuride, a drug with similar potency to bromocriptine, reduces the off phase of on-off swings.¹⁶ The toxicity of these three ergot derivatives is similar, and they remain valuable in extending the useful period of active treatment when the benefits of levodopa are waning or the patient's fluctuating performance is causing problems. The suggestion that low doses of bromocriptine should be given early in the disease in place of levodopa has not yet been substantiated and is not recommended. All of these ergot derivatives should be used with extreme caution in the elderly.

A recent, different approach has become possible with 1-deprenyl, a relatively specific inhibitor of monoamine oxidase-B which is claimed to have a selective stimulant action on the dopaminergic system.¹⁷ A dose of 5-10 mg a day appears to have a weak potentiating action on levodopa. Used alone the antiparkinsonian action of 1-deprenyl is weak but it may be a mild stimulant of the amphetamine type. Its present place appears to be as an adjuvant in selective cases of advancing resistant disease.

At all stages we should aim to confine treatment to no more than two drugs at a time; these should be frequently reviewed with an eye to timing, duration of benefit, and side effects. Hourly charts of symptoms, activity, and side effects recorded by skilled observers throughout the day may allow fine adjustment and lead to new and useful strategies. Even at a late stage it is often surprising how much improvement results from a short period of hospital admission, simplification of treatment, and attention to detail in the domestic arrangements and mental attitudes to the patient's management.

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Parallel imports: a pharmacist's viewpoint

The use of parallel imports is said to be unfair to patients, unfair to the DHSS (since extra profit is generated for pharmacists using these products), and unfair to prescribers. In this article the term parallel imports refers only to medicines manufactured in Britain, exported to a community country where there is a cost differential with the domestic price in Britain, and then reimported. I do not intend to deal with products manufactured in European Economic Community countries and imported to Britain or indeed with counterfeit products, although some of the following remarks may well be applicable in these cases.

Current concern has arisen because of exploitation for commercial reasons of the Medicines (Exemption from Licences) (Importation) Order 1978 (SI 1978/1461)—an exemption intended to apply "in circumstances in which small quantities of medicinal products are imported into Britain, for the purpose of treatment of particular patients."

Certainly parallel importing of medicines may cause several problems. Patients may be confused—for example, by minor differences in the colour or shape of the product. If faulty, products may be more difficult to recall to the manufacturer. The product may not have been stored and transported under optimum conditions—so that checks for quality control should be carried out on arrival in Britain. On the other hand, Mr Kenneth Clarke, the Minister of Health, has confirmed that all labelling particulars must be in English; this will mean relabelling by the parallel importer.¹ The Pharmaceutical Society Council has published a statement that "any pharmacist who dispenses a medicine not having all requisite information in English, would be guilty of unprofessional conduct."²

Clearly the issue of parallel imports is of great concern to the profession of pharmacy. Only a few pharmacists are dispensing these medicines, and, though there is little evidence of unsatisfactory products being used, the potential risks are grave. Several suggestions have been put forward for control of the practice, such as a register of pharmacists who do not participate in parallel importing. This suggestion has been rejected on the grounds that it may contravene European Economic Community regulations. Another is that pharmacists should endorse prescriptions (but again this is not favoured because of problems with trade barriers and the Treaty of Rome). A further idea is that parallel importers should be required to notify the DHSS at regular intervals of the names of customers supplied and the quantities.

On the positive side some pharmacies are displaying notices stating: "Important Notice. This pharmacy does *not* dispense parallel imported medicines." At least one health authority has warned chemist contractors that, in certain circumstances, they may be in breach of their terms of service by supplying parallel imports on NHS prescriptions.

The national press has given this subject wide coverage, much of it inaccurate, but some points warrant comment. The Price Regulation Scheme operated more tightly in other European Economic Community countries, thus creating this "opportunity." The market for parallel imports may be around £120m a year. The government may refuse to reimburse contractors at the present rate, thus forcing more to correct the balance by resorting to parallel imports, with a consequent lowering of standards. The pharmaceutical companies may be able to obtain price increases for other products—that is, those not being parallelly imported—so that the DHSS

might be paying the full price for parallelly imported material and have to pay more for other products, because of the profit control scheme.

So what of the future? The present state of affairs is not in the nation's interest, nor will it benefit the public. Apparently Mr Norman Fowler, Secretary of State for Social Services, intends to introduce a new Medicines Order within the next few weeks at the same time as the modified licensing system comes into operation.³ The new system is intended to ensure that importations will be restricted to small quantities of unlicensed medicinal products or that the products are entirely satisfactory in every aspect. The proposals provide that, firstly, parallel imports must be licensed in a European Economic Community member state and have no different therapeutic effect from the product already licensed in Britain. The Licensing Authority will be able to check that the product is effectively covered by a British product licence. Conditions of storage, distribution, packaging, labelling, and inspection are all covered by the order.

The second stipulation concerns the people who at present are acting as wholesalers and on occasions supplying prescription only medicines to non-pharmacists. In future such people will require a wholesale dealer's licence. In instances where the products need relabelling the parallel importer will require a manufacturer's (assembly only) licence. The new order will make it illegal to advertise, and this should stop the practice of unsolicited material being sent through the post. Arrangements for batch control information and product recalls are also included.

Since several other countries have already taken action to protect themselves these proposed new measures are long overdue (Association of the British Pharmaceutical Industry, consultative document MLX 150). Only time will tell if they are effective.

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Dilate the pupil and see the fundus

No ophthalmologist expresses an opinion on a fundus through an undilated pupil—a generalisation with few exceptions. The theoretical risk that mydriatic drugs may produce acute closed angle ("congestive") glaucoma has been overestimated.

Tropicamide 0.5% eye drops from sterile single dose capsules are almost ideal, because they produce a useful effect in about 20 minutes, which rises to a peak at 40-60 minutes; the effect passes off in six to eight hours.¹ Cyclopentolate 1% and homatropine 1% are less useful, because their action lasts about 24 hours.¹ The effect of atropine lasts for a week or more so it is rarely used for viewing the fundus.¹ The individual response to all these drugs varies and is poorest in the dark brown iris. They act by weakening the

sphincter muscle of the pupil: they are parasympatholytic. The tone of the dilator muscle, under sympathetic control, then enlarges the pupil; that action may be supplemented by the powerful adrenergic phenylephrine 10% to achieve wide mydriasis.² Phenylephrine alone works moderately well with the same time relations as tropicamide.¹

The mydriasis may be reversed within about an hour with pilocarpine 0.5% or 1%, which directly stimulates the muscle fibres of the pupillary sphincter. Many ophthalmologists omit that, however, because of the discomfort of strong miosis and spasm of the ciliary muscle (accommodation), preferring to allow the effect of mydriatics to decline with time. Thymoxamine 0.5% will selectively eliminate sympathetic stimulation only, and so is a precise way to reverse the effect of phenylephrine.³

Without mydriasis the clinician will see only the optic disc reasonably well—at least in the elderly, because the older the patient the smaller the pupil. The very important macula and fovea are particularly difficult to see because stimulation of that area by the light of the ophthalmoscope will cause maximal constriction of the pupil through the pupillary light reflex arc. Evaluation of early cataract usually requires mydriasis. Some of the mysteries of medical retinopathies can be dispelled by the physician's seeing the fundus through a dilated pupil, especially if he has raised his probability of correct diagnosis by testing the patient's urine for sugar and recording the blood pressure beforehand.

The risk of producing acute closed angle (congestive) glaucoma is small. In a predisposed eye, dilatation of the pupil causes the peripheral iris to block the trabecular meshwork, the escape route for aqueous humour. This leads to a sudden rise in intraocular pressure and speedy loss of vision from corneal oedema ("steamy cornea"). The doctor should be wary of the patient with small eyeballs, corneas of small diameter, and shallow anterior chambers, especially if a parent or sibling is known to have glaucoma or has been admitted to an eye hospital for an emergency operation for glaucoma. A simple test may help to show that the pupil is on a more anterior plane than the periphery of the iris: shine a bright light with a concentrated beam from the temporal side along the plane of the iris.⁴ If the nasal side of the iris is in shadow that suggests a shallow anterior chamber. If in doubt, dilate only one pupil with phenylephrine 10% and reverse its effect by thymoxamine 0.5%, leaving examination of the other eye for a subsequent visit.^{5,6}

Other ocular side effects should be remembered. The patient will have some difficulty in reading with the treated eye(s) for the rest of the day unless his presbyopia is complete and he has full correction with spectacles. The explanation is that the ciliary muscle (for accommodation) is affected as well as the pupil. A chauffeur must be available to drive the patient home, since a car accident could be caused by glare when the sun is low in the sky.

Systemic toxic effects are possible from drugs in eye drops which sidestep initial detoxification by the liver,⁷ though these are rare when a small single dose is used.^{8,9} The patient may notice the taste of the drug as it drains into the nose and pharynx through the nasolacrimal duct, adding to the absorption by conjunctival blood vessels. Children and the elderly are most at risk. As might be expected, adrenergics may cause cardiac irregularities, with raised blood pressure, headache, trembling, and sweating; all these features may be worse in patients taking tricyclic antidepressants or monoamine oxidase inhibitors or being given halothane.¹⁰ The parasympatholytics tend to produce effects on the central nervous system, from bad dreams to confusional psychosis.^{7,11}