The increasing sophistication of modern medicines makes it increasingly difficult for any country adequately to provide cutting-edge health care for all its citizens while providing financial incentives for innovation. Also, the more a country invests in health care spending, the more pharmaceutical companies will invest in new and innovative treatments and the higher the cost of providing these treatments to patients will become. Investing larger sums of money in the NHS merely propagates this upward spiral. Rather, we should endeavour to make the most of our existing levels of NHS spending. This article will examine the provision of prescription-only medicines in two other countries with similar health services to our own, namely Australia and Ireland, and attempt to assess which elements of these provisions would improve health care resource allocation in the NHS.

Australia

Medicare Since 1984, the bulk of current health care provision in Australia has been based upon the Commonwealth-funded health insurance scheme, Medicare, which is financed through progressive income tax and an income-related Medicare levy of 1.5 per cent. Medicare was established on the understanding that all Australians should contribute to the cost of health care according to their ability to pay. It is founded on the worthy principle of ensuring universality, thereby desiring that all Australian citizens have access to the same standard of health care. This system provides free or subsidised health care services to the Australian population. Unlike the NHS, Medicare funds rather than provides national health services. Benefits under Medicare include free access to public hospital care and cash benefits related to the cost of private medical services that include GPs, medical specialists, optometrists and dentists. Other major benefits extend to subsidies for nursing care and prescription medicines supplied by private pharmacists. Through the Pharmaceutical Benefits Scheme (PBS), the Australian government makes a range of necessary prescription medicines available at reduced prices to all Australian residents and those overseas visitors eligible under reciprocal health care agreements.

Pharmaceutical Benefits Scheme The PBS was established in 1948 by the government of prime minister Ben Chifley as part of wider plans to create a British-style national...
health service. Medicines provided under the PBS were free to the consumer until 1960, when nominal user charges were introduced. To this day, those eligible are entitled to subsidised medicines, with some clients entitled to a further reduced concessional rate. Additionally, the PBS “safety net” provides financial assistance to individuals and families who use large quantities of medicines in a calendar year. Current provisions governing the operations of the PBS are embodied in Part VII of the National Health Act (1953) together with the Repatriation Pharmaceutical Benefits Regulations 1960 made under the Act.

In order to receive a pharmaceutical benefit under the scheme, a consumer must be prescribed a drug listed in the Schedule of Pharmaceutical Benefits. The subsidy is automatically applied when the drug is dispensed at a pharmacy — the cost to the patient is the nominal co-payment contribution rather than the full cost of the medicine. As of 1 January 2007, the patient co-payment contribution is $A30.70 (£13) per item for general patients. Those covered by welfare entitlements and those eligible for the Repatriation Pharmaceutical Benefits Scheme (R PBS), explained below, pay a reduced co-payment of $A4.90 (£2.10).

Through the Veterans’ Entitlements Act 1986 the Department of Veterans’ Affairs provides programmes of compensation, income support and treatment for eligible veterans and their dependents. One of the defined benefits for eligible veterans is the PBS. Its structure is similar to that of the PBS, but the range of medicines and dressings available is more comprehensive. In 1992 a co-payment for the R PBS, which had previously been free to those eligible, was introduced. Since that time, the pricing and payment principles, and the arrangements for approved pharmacists supplying pharmaceutical benefits under the R PBS have been the same as those arrangements applying under the PBS.

There are “safety net” provisions for a reduction in the patient co-payment contribution once a family (parents and dependents) has exceeded a certain payment threshold on PBS-subsidised medicines in a calendar year. General patients are entitled to PBS medicines at the concession price for the remainder of the calendar year, while concession patients are entitled to PBS or R PBS medicines at no cost for the remainder of the year. For 2007, these thresholds are $A1,059 (£450) for general patients and $A274.40 (£116) for concessions.

**Brand premiums** In an effort to limit the cost of the PBS, the Commonwealth government introduced brand premiums on medicines where cheaper generic brands were available. The brand premium is usually the price difference between the innovator brand and the generic brand. The patient must pay this brand premium in addition to the normal patient co-payment contribution if they refuse to accept the generic brand. The brand premium does not count toward the safety net threshold and must still be paid once the threshold is reached.

Australians are allowed to substitute generic brands for prescribed brands in the Schedule of Pharmaceutical Benefits if consent is obtained from the patient and prescriber. The prescriber’s consent is always assumed to be granted unless “brand substitution not permitted” is indicated on the prescription. For example, Abbocillin-V paediatric oral suspension 125mg/5ml attracts a brand premium of $A1.82 over the benchmark priced brand Cilicaine V. This means that for quantities up to the maximum allowable (200ml per prescription), the general patient must pay $A32.52 (£13.80) for Abbocillin-V, only $A30.70 of which contributes towards the safety net threshold.

**Therapeutic group premiums** Another effort to limit the cost of the PBS involves the levying of therapeutic group premiums (T GPs) on medicines that are priced significantly above the cheapest medicine in a narrowly defined therapeutic subgroup where the drugs are considered to be of similar safety and efficacy. The T GP is the price difference between the premium brand and the benchmark price for drugs in the class. The patient must pay the T GP in addition to the normal patient co-payment contribution if they have been prescribed such a medicine. Norvasc 5mg tablets, for example, carry a T GP of $A6.48 (£2.75), which must be paid on top of the co-payment. The T GP paid does not count toward the safety net threshold. A prescriber may, however, obtain an exemption from the T GP on behalf of the patient if:

- Adverse effects occur with all of the base-priced drugs
- Drug interactions occur (or are expected to occur) with all of the base-priced drugs
- Transfer to a base-priced drug would cause patient confusion resulting in problems with compliance

Such an exemption requires an approved PBS “authority” prescription from Medicare.

**Authority prescriptions** Some PBS medicines are restricted and require prior approval from Medicare. These are noted as “authority required benefits” on the Schedule. Authority may be obtained by a prescriber by telephoning Medicare or in writing from an authorised delegate of the minister for health and ageing. Prescriptions must be written on an authority prescription form and an approval number must be noted on the prescription. Pharmacists cannot dispense the item as a pharmaceutical benefit unless it has been approved by Medicare. Authority prescriptions must also be issued where the quantity of the prescribed drug exceeds the maximum allowable amount specified in the PBS Schedule (eg, where an adult patient requires paediatric antibiotic formulations because of an inability to swallow and the total quantity of paediatric medicine must be increased to match the duration of the adult course). In obtaining a telephone approval, prescribers simply identify themselves (using their name and provider number), the patient (using their Medicare number) and, when asked by the operator, confirm which of the conditions eligible for an authority the patient is suffering from. The health department normally deems the doctor’s assertion that the condition exists as sufficient.

A Medicare card with a unique number is issued to Australians so that they can access free or subsidised health care services. Medicare is Australia’s Commonwealth-funded health insurance scheme.
Restricted benefits Certain medicines listed on the PBS are available only for specific indications. These are noted as "restricted benefits" on the Schedule. The onus of policing restricted benefits falls on prescribers and pharmacists. Celebrex, for example, is listed on the PBS as a restricted benefit for the symptomatic treatment of osteoarthritis and rheumatoid arthritis. Prescribers using Celebrex for other indications are expected to indicate that the medicine is "non-PBS" on the prescription and the pharmacist dispensing the medicine should charge the patient the full cost.

Pharmaceutical Benefits Advisory Committee The Pharmaceutical Benefits Advisory Committee (PBAC) makes recommendations to the minister for health and ageing regarding drugs which should be listed on the Schedule of Pharmaceutical Benefits. When considering a medicine for listing on the PBS, the PBAC considers factors including:

- The conditions for which the drug has been approved for use.
- The conditions in which use has been demonstrated to be effective and safe compared with other therapies.
- The costs involved.

The PBAC is required to ensure that the money that the country spends in subsidising the PBS represents cost-effective expenditure of taxpayers' funds by considering factors including, for example, costs of hospital stay or other alternative medical treatments that may be required, as well as less tangible factors such as patients' quality of life. Decisions about the PBS listing are generally made on a health economics perspective, with a cost-benefit analysis determining whether the cost of the medicine to the community justifies the benefit.

Ireland General Medical Services In Ireland, people who are unable, without undue hardship, to arrange private GP medical and surgical services for themselves and their dependents receive a free medical service under the General Medical Services Scheme (GMS). Medicines and appliances supplied under the scheme are free and provided through community pharmacies. In most cases the prescriber gives a completed prescription form to a person who takes it to any pharmacy that has entered into an agreement with their local health board for the provision of the GMS under s.59 of the Health Act 1970.

Payments made to pharmacies under the GMS and related schemes include the cost of medicines, dispensing fees and VAT. Those entitled to GMS prescriptions are issued with a "medical card". Anyone over the age of 16 years who is ordinarily resident in the Republic of Ireland (i.e., living, or intending to live, there for a minimum of one year) is entitled to apply for a medical card. To qualify for a medical card, a resident must:

- Have assessable income that is under the set financial threshold, or
- In the opinion of the Health Service Executive, be subject to undue hardship due to the financial burden of medical or other exceptional circumstances, or
- Be aged 70 years or over, or
- Be entitled to retain their medical card under previous government schemes.

The Drugs Payments Scheme (DPS) applies to persons who are resident in Ireland and do not have a medical card. Under the DPS, no individual or family is required to pay more than €78 (£53) for approved prescribed medicines in any calendar month, provided that all the prescribed medicines are dispensed in the same pharmacy in that month. For each subsequent pharmacy used, there is a liability for a further charge of up to €78. Family expenditure covers the nominated adult, his or her spouse, children under 18 years of age and persons under 23 years of age who are in full-time education. A dependent with a physical disability, mental handicap or illness who cannot maintain himself or herself fully, who is ordinarily resident in the family home and who does not hold a medical card is also eligible. Where the cost of medication is less than €78, only the actual cost of the medicine is paid by the eligible person. Those eligible are issued with a "DPS card".

On approval by their local health board, patients who suffer from one or more conditions from a schedule of illnesses are entitled to obtain, without charge and irrespective of income, necessary medicines and appliances under the Long Term Illness Scheme (LT1). All LT1 claims are processed and paid by the GMS (Payments) Board.

Comparison Although administration of the schemes differs between England, Ireland and Australia, their effect is markedly similar. All patients, regardless of their income, receive subsidised medicines in a primary care setting, with those in the lowest income groups, together with those with scheduled medical conditions, receiving an additional subsidy. England is unique in that, under the current view of the requirements for being "free at the point of need", those receiving state benefits are entitled to free prescriptions from the NHS.

Of the three systems considered, Ireland's would appear to have the least efficient mode of delivery. In England and Australia, prescription medicines and appliances are administered by means of a single system applying to all, whereas Ireland has adopted a convoluted system that provides a separate scheme for almost every group of patient. Those ineligible for the GMS may qualify for reduced payments under the DPS, the LT1 or the Methadone Treatment Scheme, to name but a few. Prescriptions dispensed under each scheme must then be submitted for payment under separate administrative arrangements by the pharmacy contractor. In England, NHS prescriptions allow medicines to be dispensed to all patients, regardless of their eligibility or reason for exemption, just as PBS or RPBS prescriptions do in Australia. In each case, the contractor or service provider may submit a single claim for payment at the end of each period. However, the relative inefficiency of the Irish system does not mean that aspects of it, most notably the DPS, would not prove beneficial if applied to the NHS in England.

NHS reforms

Drug tariff Unsurprisingly, given their common heritage, the mechanisms for the regulation and provision of medicines in England and Australia are not dissimilar. From a regulatory perspective, parallels can be drawn with regard to the aims and objectives of their respective legislative policy and regulatory institutions, namely Australia's Therapeutic Goods Administration (TGA) and the Medicines and Healthcare products Regulatory Agency. Strong parallels are also evident at an administrative level, specifically between the PBAC and the National Institute for Health and Clinical Excellence, and the PBS and the NHS Business Services Authority (NHSBSA) Prescription Pricing Division.

NHS reforms subject to local decisions made by individual primary care trusts, often provides funding and resources in England and Wales for medicines and treatments recommended by NICE. In general, doctors, nurses and other health care professionals in the NHS are expected to follow NICE clinical guidelines. However, there are times when a practitioner or NHS trust may deem that the recommendations are not suitable for a patient or group of patients. In such cases, and as local funding allows, NICE guidelines may be ignored, leading to the postcode lottery so much vaunted in the national press. Indeed, many local NHS organisations have worked out specific plans to allocate resources and to support staff providing clinical care outside of what is recommended in NICE guidance.

Like NICE, the PBAC is required by Australian Commonwealth law to consider the cost-effectiveness of a proposed treatment compared with alternative therapies. Unlike NICE, however, the PBAC can veto the use of a specific drug at the expense of the taxpayer, since no new drug may be made available as a pharmaceutical benefit unless the committee has so recommended. In making its recommendations, the PBAC recommends maximum quantities that may be issued on a prescription and may also recommend restrictions as to the indications where PBS subsidy is available.

The PBS Schedule of Pharmaceutical Benefits is essentially an Australian drug tariff. As with the Drug Tariff, only those items listed are reimbursable on publicly funded prescriptions. Unlike NICE guidelines, which
are disseminated to prescribers through an implementation programme and may be considered by the Pharmaceutical Directorate of the NHSBSA when drafting the Drug Tariff, the recommendations of the PBAC directly affect which drugs are listed in the PBS Schedule. NICE must be given statutory powers to recommend which drugs are included in the Drug Tariff. Following on from the Australian model, we must move to limit prescribing powers to what can be justified in terms of cost and effectiveness. The role of NICE must be broadened, so that it can actively regulate, rather than just advise on, prescribing policy. This would not override the prescriber’s autonomy in making what he believes is the correct choice of treatment for his patients, but would impose a financial penalty on the patient if his choice was other than could be justified in terms of clinical necessity. A high fee could make it financially unaffordable for the patient to receive a drug that he might otherwise consider beneficial to his health. This would also ensure the patient would have to bear the cost of the drug.

Prescription charges
Rather than the move towards reducing, or even removing, levies on NHS prescriptions, as championed by the NHS in Scotland and Wales, we must seriously consider making everybody pay a nominal contribution towards their prescription medicines regardless of their financial status. Subject to the provisions of a version of the safety net, those currently receiving prescriptions could make a contribution of, say £1 per item, while those currently paying £6.85 per item could pay a percentage of the actual cost of their medicine. These contributions would be limited by safety net thresholds modelled on the Irish DPS. General patients and their families would be limited to £40 for approved prescribed medicines in any calendar month, while those receiving state benefits would be subject to a £10 monthly limit. Based on current dispensing figures, this would generate annual revenues of the order of £1bn for the NHS, which could be redirected to fund high-cost innovative and orphan drugs in a secondary care setting for those with the greatest need.

There is a strong argument that providing medicines free-of-charge devalues them in the eyes of patients. To those receiving free medicines, one little white tablet is much the same as the next. It is important that patients are aware of the relative costs of their medicines, so that they may better understand that the apparent injustice of any restriction in the range of medicines available to them is often a matter of simple economics. By making a co-payment for their medicines, patients may better learn the value of their medicines and contribute to the cost benefit calculation directly by deciding whether or not they wish to pay for the prescribed drugs. This would prove particularly useful in reducing the seasonal influx of cold sufferers who increase waiting times for the more seriously afflicted in GP surgeries. It can be argued that introducing even a nominal charge for prescribable medicines may seem to discriminate against those in the lowest socio-economic classes. It is possible that co-payment may present a barrier to someone with a bad cold but, with the time and resources it could free, those who are seriously ill should at least be able to get an immediate appointment with their GP.

An increased appreciation of the cost of medicines, and how this affects other aspects of health care provision, could also increase patients’ interest in their medicines. Measures to determine whether patients are receiving superfluous medicines, specifically the medicines use review (MUR), would benefit greatly from this greater awareness. The Royal Pharmaceutical Society and the NHS are often keen to stress that the MUR should be approached with a view to creating concordance and that it is not a clinical use review. Clearly, the effectiveness of this approach is dependent on the patient being informed about the condition and the various treatment options, is jointly involved in the decision as to which course of action to take and partially responsible for the monitoring and reporting back to others involved in his or her care. Invariably, the MUR is instigated by the pharmacist. The main aim of MURs is to maximise the appropriateness, safety and effectiveness of medicines. Under the remit of assessing the appropriateness of the patient’s medicine, the pharmacist may, by questioning the patient, seek to identify unnecessary therapy. Currently, the effectiveness of this approach is dependent on the patient being offered an MUR and being inclined to accept the offer. If there is a financial cost associated with each prescription medicine, it is logical that questions about appropriateness and concordance issues are more likely to be instigated by the patient rather than by the pharmacist.

Generic substitution
The introduction of generic substitution in the UK has been the subject of much discussion in the earlier part of this decade. Arguments against its introduction have centred on issues of patient safety and of supporting innovation in the pharmaceutical industry. Patient safety has been addressed in Australia by allowing prescribers to withdraw their consent to substitution by ticking a box on the prescription. In the UK, changes to the Drug Tariff and the new GP contract have effectively achieved the same end by encouraging the prescribing of generic medicines, but allowing prescribers to specify off-patent proprietary medicines where they feel a genuine need exists.

This approach could also be applied to specific therapeutic groups, where doctors would be expected to demonstrate criteria like those required in Australia in order to prescribe a more expensive brand without subjecting the patient to an additional premium. This approach should not discourage innovation in the pharmaceutical industry, although many may argue it does. If a new drug offers no additional benefit in terms of safety or efficacy over an existing brand leader, there is a strong argument that it should never reach the market in the first place, and, where it does, it should certainly not be funded from the public purse, especially where it is available at a higher price.

Conclusions
Australia, Ireland and England have broadly similar mechanisms of delivering subsidised medicines to their citizens. However, subtle differences in their administrative procedures and modes of payment make some aspects of the non-English models more efficient than those in place within the NHS. The application of these aspects of Australian and Irish health care into our own system need not cause massive disruption, since many of our administrative bodies have strong parallels with those in these countries. Making a nominal charge for prescription medicines would not conflict with the founding principles of the NHS, nor would it disadvantage those who are seriously ill. On the contrary, it would increase public appreciation of the value of medicines and by so doing decrease the incidence of people wasting GPs’ valuable time seeking treatment for minor self-limiting conditions. This would, if anything, make more time available for patients with more serious conditions who, thanks to increased concordance, were better able to engage with health care practitioners on matters relating to their health.

 Rather than constantly increasing spending on the NHS, which only serves to drive up costs, we must strive to make the most of the existing level of investment. It is important to examine how other countries deal with the universal problems of health care provision and learn from their endeavours as well as our own.

Further reading