three years have been reported to be around 90% for iliac angioplasty[10-13] and 75% for femoropopliteal angioplasty,[10 12 14] although complete long term follow up has not always been achieved and both measurement protocols and "success" have sometimes been poorly defined. Indeed, 12 centres cooperating with Zeitler and Gruntzig could furnish follow up data on only 35-40% of cases.[15] Stringent objective follow up of a large series of patients has been reported by Johnston and colleagues from Toronto,[16] showing cumulative success after two years in only 66% of iliac and 48% of femoropopliteal angioplasties. These carefully monitored results contrast with more optimistic reports, particularly because most of the patients treated had claudication and thus a prognosis after angioplasty better than those with more severe ischaemia. Another important consideration is the effect of experience, and units beginning or performing few procedures have poorer results.[17-21] The complication rates of those with modest experience also differ from the figures of less than 5% claimed by larger units.

These points need to be considered before offering angioplasty to the patient with less severe symptoms than would normally justify surgery. The typical patient presenting with signs of a superficial femoral artery occlusion has a good prognosis and may improve or remain stable over many years. To see whether this disease is amenable to angioplasty will require an arteriogram, and even if a suitable lesion is present angioplasty may also give rise to complications and has a lower success rate than bypass grafting. Failure of angioplasty rarely, however, makes a patient worse than before,[22] and the possibilities of a repeat angioplasty or of surgical reconstruction remain.

The increasing use of angioplasty has implications both for vascular surgery and for the National Health Service. It may delay or avoid amputation in some unfit patients with critical ischaemia, and many more patients with modest disability can now be treated. There are, however, no controlled data comparing the long term results of angioplasty with those of non-intervention. A multicentre study has been started, but until this and other studies can provide guidance vascular surgeons and radiologists will need to balance their own success and complication rates against the benign clinical course of intermittent claudication.

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A practical guide to prescribing hypnotic benzodiazepines

Insomniacs complain of lying awake for long periods before falling sleep, wakening during the nights and not falling asleep again quickly, or wakening early. As a consequence they feel tired during the day. The tradition of prescribing sleeping pills has led to the widespread use of today's favourites, the benzodiazepines. These drugs have their problems, however, and guidelines are needed for the practical prescriber.

He needs to know three things about the pharmacokinetics of the benzodiazepines[1]: firstly, that their rate of absorption determines the speed of their onset of action; secondly, that some benzodiazepines—such as diazepam and to a lesser extent temazepam—are redistributed quickly, which limits the duration of their action; and, thirdly, that the speed of their elimination usually determines their duration of action. Hypnotics with rapid onset and offset are useful in those who cannot get to sleep but not in those who wake early; drugs with slower onset will not help the patient fall asleep quickly.

The next day the patient may have subjective feelings of sedation and show objective evidence of psychological impairment.[2 3] In general these residual effects occur more often after long acting drugs (such as nitrazepam or flurazepam) than after intermediate (temazepam) or short acting ones (triazolam). But dosage is very important: thus 5 mg of nitrazepam produces few effects compared with 10 mg[3]; similarly, large doses (over 0·5 mg) of triazolam produce definite hangover effects.[4] Furthermore, accumulation of long acting benzodiazepines is inevitable and particularly troublesome when high doses are used.

When benzodiazepines are stopped patients may experience transient insomnia[5] or anxiety,[6] and they may thus be led to restart their drugs. Rebound effects are particularly likely to occur if the drug is short acting, given in high dosage, and withdrawn abruptly. Conversely, very long acting hypnotics (such as flurazepam or quazepam) show milder and less consistent rebound effects.

There are four main groupings of insomnia. Firstly, some patients sleep poorly because of pain, dyspnoea, and pruritus, and the primary condition should be treated. Secondly, many patients suffer from anxiety or depression, or both, and again the primary emotional disturbance should be treated. Anxiolytic or antidepressant drugs may be given at night. Next, many patients complain chronically of poor sleep without definite associated psychiatric syndromes, but the insomnia may reflect otherwise subclinical anxiety and depression. Finally, some normal sleepers may experience transient insomnia because of acute stress or short term insomnia associated with a longer term stress often related to

work or family life.[7] These patients include the jet lagged businessman, the shift worker, and the bereaved.

Benzodiazepines are generally useful in those with transient insomnia. Because the patient is not anxious and wants to keep alert the next day the doctor should choose a drug with minimal residual effects: temazepam or lormetazepam are preferable when the problem is to stay asleep (often the problem in shift workers), and triazolam when the subject cannot fall asleep—for example, in a hotel with traffic noise. Because of biological variation, however, more than one drug may need to be tried. Patients in hospital awaiting investigations or operations may welcome longer acting drugs that provide some sedation the next day, but these must be withdrawn before discharge.

Short term insomnia is not an automatic indication for a hypnotic. All too easily what starts as short term use for an emotional problem may slide into long term use, with rebound or even a withdrawal syndrome when the drug is stopped. If a drug is used the dosage should be moderate and the patient should be encouraged to take it intermittently. Difficulty in getting to sleep is the usual complaint but varies from night to night; the patient should be urged to try without drugs and to take them only if unable to sleep after an hour or so. Drugs should not be needed after two weeks or so. If the patient is anxious a modest dose of a longer acting hypnotic or diazepam may be used with minimal risk of rebound; otherwise, a shorter acting compound in modest dose will minimise residual effects.

Chronic insomnia is the most difficult type to manage, and careful assessment and general supportive measures are essential. Caffeine and alcohol may need to be restricted in the evening, and moderate exercise earlier in the day often helps. Psychiatric syndromes should be excluded, but antidepressants may be tried if other possible depressive symptoms such as poor appetite are present. Hypnotics should be resorted to only intermittently as these patients may end up using them long term and experiencing rebound and withdrawal symptoms if they try to stop.[8] Again, use as needed is best as chronic insomniacs often vary greatly from night to night in the severity of their insomnia.

The dosage of the hypnotic must be kept low: both residual and rebound effects increase sharply with increased dosage. The duration of prescription must also be kept short, and in my view pleas to make benzodiazepines more freely available underestimate the hazards.[9]

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Regular Review

Hormonal changes in non-endocrine disease

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Illness produces a wide variety of metabolic effects. As the endocrine system is intimately concerned in regulating metabolism, not surprisingly extensive hormonal changes also result from illness. Some have clear advantages to the patient—notably, the surge in catabolic hormones after illness allowing mobilisation of energy stores which may be necessary for survival. Others have less obvious advantages for survival.

Failure to recognise hormonal changes that accompany illness may lead to a mistaken diagnosis of primary endocrine disease and inappropriate treatment. Thus it is important to recognise those abnormalities which may be expected to occur to prevent mistaken diagnosis of a primary endocrine problem. This review outlines those changes in each major endocrine system which may be encountered in ill patients.

Thyroid function

Alterations in thyroid function have been extensively studied and recently reviewed.[1 2] Thyroid function tests are commonly performed, and certain ill patients—notably, those with hypothermia or chronic renal failure—appear clinically hypothyroid. Thus abnormalities of thyroid function in ill patients may lead to clinical confusion, and the ability to interpret thyroid function tests correctly is important.

Low concentrations of triiodothyronine (T3) are found in a variety of clinical states, including surgery,[3] myocardial infarction,[4] and starvation.[5] Plasma T3 is largely derived from the peripheral conversion of thyroxine (T4), a process that is suppressed in ill patients.[6] Low T3 states are also