differentiation requires a more complex explanation. Failure of testis differentiation in XY females may result not only from deletion of the GDY locus because of X-Y interchange. Deletion of the GDX locus would have the same effect and may even be responsible for familial cases inherited in an X linked recessive manner, provided that XX carriers of GDX deletions were fertile. Alternatively, other gene mutations affecting later stages in the pathway to testis differentiation may be involved.

The defect in XX true hermaphroditism and in XX males without the GDY locus is even more intriguing. XX true hermaphrodites have both ovarian and testicular tissue (usually ovotestes) associated with ambiguity of the external and internal genitalia.⁸ The phenotype is identical to spontaneous human XX/XY chimaeras and to artificial XX/XY aggregation chimaeras in mice, but neither the GDY locus nor any other Y specific sequence can be detected.¹⁵ Similarly, in XX males without the GDY locus other Y specific sequences are almost invariably absent. These patients are phenotypically rather different from X-Y interchange males—principally because they often have hypospadias—and they probably belong to the same range of abnormal gonadal differentiation as XX hermaphrodites.

It might be that in both these XX cases the dosage of gonad differentiating factors is disturbed by an inversion or other mutation on the short arm of one X chromosome such that one GDX locus escapes from X inactivation. Random X inactivation of the two X chromosomes will then lead to somatic cell mosaicism for cells with two active doses of GDX and cells with only one active dose. This is identical to XX/XY chimaerism, in which some cells are testis determining and others are ovary determining. Again familial cases with siblings affected either by XX true hermaphroditism or XX Klinefelter's syndrome (or both)¹⁷ may all be explained by the X chromosome with the activated GDX locus sometimes being transmitted as an X linked dominant trait (with variable penetrance) by unaffected fertile XX mothers or XY fathers.

The techniques of molecular genetics are powerful, and we may confidently expect tests of these hypotheses in experimental animals. For example, the sex reversal of female embryos by adding additional copies of the GDX gene during early development would provide confirmation. But the important message at the moment is that a DNA binding protein will probably shortly be characterised whose primary function is to determine quantitatively the direction a group of cells will take along the pathway to tissue differentiation.

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Sickness absence: the doctor's role

Mostly concerned with serious illness

Sickness absence, or more accurately absence from work attributed to incapacity, is expensive for the country and for employers. Its cost must be measured not only in social security payments but also in the loss of productivity and the inefficiencies of employing extra staff or organising overtime to cover for missing staff. Government statistics do not record sickness absence as such, but in the United Kingdom before 1983 some 375 million days of sickness and invalidity benefit were paid annually because of certified incapacity for work.¹ This figure includes payments to the unemployed sick who would not necessarily be in work if they were fit and excludes married women who opt out of the state insurance scheme, special occupational groups such as non-industrial civil servants, and absences lasting less than four days (which did not qualify for benefit). More recent data also exclude payments under the statutory sick pay scheme and are therefore less relevant.

The epidemiology of sickness absence is complicated by the variety of indices used to measure it. Two important features do, however, emerge clearly. Firstly, the demographic pattern of short term absences differs from that of longer absences. As might be expected, long term absence tends to

be a problem of older employees; short absences occur more often in the young, especially in women.² Thus any analysis should examine not only the total time lost from work but also the numbers and lengths of spells which make up the total. Secondly, ill health is only one of many factors that determine whether an employee takes sick leave. Other influences include working conditions, the size and structure of the employing organisation, the arrangements for sick pay, and personal characteristics such as age, sex, personality, and family responsibilities.³ There are appreciable regional differences in the rates of sickness absence, with the highest frequencies in the north and west. This variation is apparent even within geographically homogeneous industries such as the Post Office³ and may result from cultural differences as well as from differences in morbidity.

One implication of these observations is that the control of short term sickness is primarily a problem for the manager. Employees who go off sick do not divide neatly into the genuinely ill who are deserving of sympathy and the malingerers who can be uncovered by careful medical examination. When patients suffer from chronic disorders such as asthma or colitis they may be expected to need more

spells of absence than the average, but even when there is verifiable disease the threshold for taking time off work will vary from person to person. Moreover, if patients say that they have migraine or gastroenteritis and describe the right symptoms it is hard to disprove their claims. This difficulty was recognised in 1982 when self certification was introduced for sickness absence lasting up to seven days.

Where the doctor may play a more positive part is in ensuring that patients return to work promptly after long term absence for more serious illness. A prerequisite is to find out exactly what the patients' jobs entail. Even if they are not fit to return to their normal jobs their employers may be able to find them useful alternative work either temporarily or permanently. If the company has a medical department it is helpful to liaise with the doctor or nurse who will be familiar with the occupational environment. If not, a letter to the

management should explain in simple terms what the employee can and cannot do. Specific advice such as to avoid kneeling or lifting weights over 5 kg is more useful than the vague prescription of "light" work. Timely and well managed return to work after illness is an important component of rehabilitation—good for the employer and good for the patient.

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Counsellors in general practice

Evidence of benefit needed before widespread adoption

Some general practices have long had counsellors,^{1,4} and they may become more common in general practice if the government carries through its policy of making their salaries eligible for 70% reimbursement.⁵ The possibility of the widespread introduction of counsellors makes it important that we look for evidence of benefit, and current evidence is confusing.

Special training may be required for counselling in general practice, and the British Association for Counselling is examining training schemes, hoping to accredit those that are satisfactory. The association accredits counsellors who have suitable training, have had at least three years' experience, accept the association's code of ethics, and undertake continuing supervision.⁶

One problem with accreditation and training is that there is no agreement on the content of counselling. At least four different forms of counselling have been described—each with its own rationale and training.⁷ One aim of counselling is to identify emotional problems early and to prevent more serious disturbance developing. The counsellor listens and helps patients to explore their feelings and difficulties and resolve the problem using their own resources. Counsellors may work in general practice not only with patients but also with doctors—training them in simple psychotherapeutic skills.^{8,9}

It has been claimed that counselling is an essential part of general practice¹⁰ and that allocating it to a "specialist"¹¹ is wrong. Many doctors, however, may find counselling difficult because of pressure of time and lack of skills. Despite this doctors often keep control of the initial referrals to the practice counsellors and therefore govern the nature and number of patients seen. This contrasts with counselling in other settings in which patients refer themselves. Communication between counsellor and doctor may present a problem. A recent survey has shown that some counsellors found doctors reluctant to meet with them as often as they wished.¹² Although the general practitioner still has the legal responsibility for the patient, the contract of counselling necessitates such confidentiality that even the doctor may not be told all that transpires.¹³

The evidence on the effectiveness of counselling is confusing. A recent occasional paper from the Royal College of General Practitioners mentioned the importance of research and evaluation of counselling but devoted fewer than 40 lines

to this subject,¹² and a recent editorial on counsellors in general practice in the college's journal did not deal with effectiveness.¹⁴ Two measures of effectiveness are the rate of consultation with the doctor and the rate of prescription of psychoactive drugs. In many surveys both of these variables decreased when a counsellor worked in the practice. Several of the surveys, however, covered less than one year,^{2,3} and the authors of one survey recognised that the short follow up may have biased their results.² Robson *et al* described a beneficial outcome that was significant over one year,¹⁵ but two further surveys found either no decrease in rates of consultation and prescription of psychoactive drugs¹⁶ or changes that were not maintained.¹⁷ Freeman and Button showed no lasting benefit from individual treatment after allowing for the clinical course of the problems.⁸

Irvine has claimed that the criteria used in these surveys are poor indicators of the success of counselling.¹⁸ One survey of patients' assessments showed that counselling helped them to cope with their feelings, gave relief from their symptoms, and helped them to work out a solution to their problems; and how patients feel affects their behaviour—for example, how they adjust to a major problem or illness.¹⁹ Changes in behaviour after counselling should be measured and correlated with patients' feelings.²⁰

Promoting a large counselling service in general practice before establishing what benefit accrues from this service is unwise.²¹ Hampton stated in 1983, "If we do not have the resources to do all that is technically possible then medical care must be limited to what is of proved value and the medical profession will have to set opinion aside. . . . When resources are scarce a greater proportion of them must be channelled into evaluation."²²

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