apart; forced expiratory volume in one second <1·5 l; and forced vital capacity <2 l). Two other patients had stable hypoxia shown on one occasion and a forced expiratory volume in one second of <1·5 l. A further two had only stable hypoxia documented on one occasion and no results from spirometry. Five patients were recommended concentrators without evidence of stable hypoxia: three had an arterial oxygen pressure >7·3 kPa and no values were documented in the two others. Six other patients were prescribed concentrators without a specific hospital assessment. Four of these six had no stable arterial gases shown. Two of the six had arterial blood gases with arterial oxygen pressure breathing air of >7·3 kPa. Only eight of the oxygen concentrators prescribed for airways disease were after recommendation by a respiratory physician.

In the group without chronic obstructive airways disease indications of inappropriate use of concentrators were also found. One asthmatic patient with a significant anxiety component had a documented stable arterial oxygen pressure breathing air of 15·6 kPa and had been given an oxygen concentrator.

We also conclude that oxygen concentrators are being prescribed after incomplete assessment by general practitioners and hospital physicians and that the Department of Health and Social Security guidelines are not always met. To avoid unnecessary prescriptions for oxygen concentrators we believe that full assessment should be provided by respiratory physicians before a prescription is written, although, of course, this will place pressure on already hard pressed services. Considerable financial savings, however, were found in the Flinders Medical Centre when it adopted this policy.[1]

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1 McKeon JL, Saunders NA, Murree-Allen K. Domiciliary oxygen: rationalisation of supply in the Hunter region from 1982 to 1986. *Med J Aust* 1987;**146**:73-8.

The article by Dr Martin J Walshaw and others (22 October, p 1030) suggests a need for better cooperation between general practitioners and hospital inpatients with chronic lung disease.

A similar stricture applies to oxygen treatment for cluster headache. This may be highly effective in about half of patients, reducing attacks from about an hour to 5 or 10 minutes. The oxygen supply needs to be at 7 litres a minute and given through a firm plastic mask to reach a sufficient concentration.

General practitioners are, however, often reluctant to supply the oxygen because they are not aware of the efficacy of this treatment, which is the only useful abortive treatment that we know in this condition.

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We undertook a survey in the Frenchay and Bath Health Districts similar to that of Dr Martin J Walshaw and colleagues (22 October, p 1030). Our study was in the 82 adult patients prescribed a concentrator from 1 December 1985 to 31 December 1988 with a retrospective review of the indications for prescription in addition to a questionnaire.

In our survey 49 recommendations came from respiratory physicians, 41 of them in accordance with the guidelines, mainly for hypoxaemia. The guidelines in the two districts have been interpreted as requiring one set of blood gas measurements and spirometry in the stable state and were checked twice only if there was doubt over stability. Of the 33 patients not referred to a specialist respiratory physician, 11 fell within the guidelines, mostly for replacement of oxygen cylinders. In total 29 patients had not been fully assessed before prescription, a figure similar to that found in Liverpool. We found our patients rather more compliant, with 73% of survivors using the concentrator for 15 hours a day or more compared with only 46% in their study. We too had a disappointingly high proportion of patients who continued to smoke (31%).

The results from both our studies emphasise the need for an improvement in the assessment and education of patients to ensure that the guidelines for prescribing concentrators are being followed.

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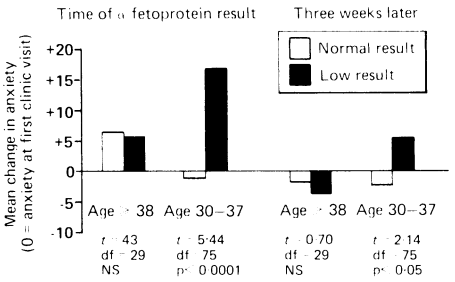
Screening for Down's syndrome

Professor Nicholas J Wald and others (8 October, p 883) report a new screening test for Down's syndrome with a higher detection rate and a lower false positive rate than currently available tests, which is likely to be welcomed by epidemiologists, obstetricians, and prospective parents. But as Drs Dian Donnai and Tony Andrews (8 October, p 876) argue, the problems in introducing any new screening test should not be underestimated. One such problem is the effect upon women of receiving a false positive result. Although distress in women who have been told that they have raised maternal serum α fetoprotein concentrations (indicating an increased risk of an open neural tube defect) has been documented,[1] there has been no study of the effects of screening for Down's syndrome. In a prospective study currently underway we are studying the impact of various prenatal test results on women consecutively booked for antenatal care at this hospital. Forty two women had abnormally low maternal serum α fetoprotein concentrations that were subsequently shown to be false positive results. We report some initial findings that illustrate the psychological impact of receiving false positive results.

We report separately on women aged 38 and over (who are routinely treated as being at extra risk from the beginning of pregnancy and are offered amniocentesis for chromosomal analysis in this region) and women aged under 38 (a group who are not encouraged to consider themselves at increased risk of having a baby with Down's syndrome), for whom an abnormal maternal serum concentration of α fetoprotein is a new challenge to the pregnancy. In the older group those with an abnormal result show similar changes in anxiety at the time of the result to those with a normal result. Three weeks later when the results of any subsequent tests have shown the result to be false they were no more anxious than those with a normal result. The results are quite different for younger women receiving a false positive result: they show much more anxiety both at the time of receiving the test result and three weeks later when compared with women with normal results (figure). The mean score for women aged less than 38 receiving an abnormal result was 53·8 (SD 2·8), a score well above normal (mean 35·1 (9·2)), and within the range for patients with a diagnosis of general anxiety disorder (mean 49·0 (11·6)).[2]

Inadequate understanding of a test and poor preparation for potentially bad news are likely to be two factors contributing to this increased distress in younger women. Women do not have a good understanding of such tests; in a previous study 39% of the women could not even identify whether they had had blood taken to test for spina bifida.[3] With adequate preparation the impact of a positive test result is likely to be reduced, as is evident in the precounselling of those using HIV antibody screening services.[4] An association between maternal stress and obstetric outcome has been documented.[5] Before introducing any new screening tests into routine obstetric care we need to ensure adequate counselling to minimise the distress now known to arise for women undergoing such tests.



Mean changes in anxiety by Spilberger state-trait anxiety inventory in women aged 38 and over and those aged 30-37 at the time of being given result of α fetoprotein concentration and three weeks later

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Acute upper airway obstruction due to supraglottic dystonia

The immediate and complete resolution of upper airway obstruction produced by benztropine in the cases described by Dr H Newton-John (15 October, p 964) was indeed fortunate. Although their symptoms were suggestive of an acute dystonic reaction, both patients had acute inflammatory conditions of the oropharynx. These may have contributed appreciably to the supraglottic airway obstruction.

Patients with severe supraglottic inflammation can deteriorate quickly with little warning and develop sudden upper airway obstruction.[1] It is not clear from the case reports whether an ear, nose, and throat surgeon or anaesthetist was consulted, but in general a choking patient requires urgent assessment for consideration of intubation or tracheostomy. In both the cases described staff initially suspected a functional disorder and the patients were not treated fully for several hours. The hazards of delay in diagnosis and treatment of