sion was incomplete in only four of these. Only one general practitioner attempted to excise what he believed to be a malignant melanoma (shown subsequently to be a squamous cell carcinoma) which is perhaps a testimony to the ease of access to a pigmented lesion clinic in the locality. Incorrect clinical diagnoses were made in 40.9% of all referrals but most of these were minor diagnostic errors involving usage of terminology. Interestingly, the general practitioners' use of the term papilloma accurately reflected the histopathological use of the term papilloma (squamous or basal cell) in only 28.7% of the 94 cases. Most of these incorrect diagnoses were naevi, benign soft tissue tumours or fibroepithelial polyps which clinically should often be clearly distinguishable from papillomas.

Fears that large numbers of malignant lesions are inappropriately excised by general practitioners appear to be unfounded and advice given by dermatologists to avoid carrying out a biopsy of malignant or inflammatory lesions has in most cases been heeded, at least in so far as specimens to the study laboratory are concerned. It is our belief that skin biopsies can be competently performed by general practitioners.

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Lofexidine based regimen for opiate addicts

Sir,

Detoxification of opiate dependent patients is a common clinical problem. Several outpatient detoxification regimens are available but most have some disadvantages, for example, abuse potential, inadequate relief of withdrawal symptoms or potential to cause hypotension. Lofexidine hydrochloride is an alpha-2 adrenergic agonist, similar to clonidine, which has been shown to reduce opiate withdrawal symptoms in methadone dependent subjects without the hypotension that may occur with clonidine.[1-3]

A pilot study was undertaken in a specialist substance misuse unit between September 1993 and March 1994 to evaluate the effectiveness of a lofexidine based regimen in outpatient detoxification of opiate addicts typical of those seen in the community, namely those dependent on a variety of opiates and, in some cases, other drugs of abuse such as temazepam. In this regimen, participants received lofexidine 0.2 mg twice daily, increasing by 0.2 mg twice daily until control of the withdrawal symptoms was achieved or the maximum recommended dose of 1.2 mg twice daily was reached. Having found that subjects frequently experienced abstinence-threatening anxiety and insomnia, those complaining of marked anxiety symptoms received chlordiazepoxide (up to 25 mg six hourly) and of insomnia, chloral hydrate (up to 2 g at night), both being reduced over the first week. When the subject had felt comfortable for five days, the lofexidine was reduced by 0.4 mg per day, or more rapidly if requested.

Opiate addicts requesting detoxification were offered the then standard detoxification regimen of chlordiazepoxide and co-phenotrope or the lofexidine based regimen. Sixteen out of 30 opiate dependent subjects chose lofexidine. Of this group three failed to complete the detoxification for reasons unrelated to opiate withdrawal. Of the remaining 13, the main drug of abuse was methadone in five cases, heroin in four (three were injecting it and also taking temazepam) and dihydrocodeine in four cases. Ten subjects required additional treatment with chlordiazepoxide and four with chloral hydrate. Symptoms of postural hypotension were not evident. Seven subjects (54%) successfully completed the detoxification, that is, achieved a drug-free state at the end of the detoxification. Of this group of seven, three had been dependent on methadone, two on heroin (both had been intravenous users and had also abused temazepam) and two had been on dihydrocodeine.

Repeated opiate abuse (on more than one occasion) during the detoxification period was a strong predictor of ultimate failure of the regimen (chi square fisher exact test, $P<0.001$).

The notes of 24 opiate dependent subjects who had undergone outpatient detoxification with the established regimen employed in the specialist unit were then studied retrospectively. In this two-week, reducing regimen subjects received chlordiazepoxide (initially 25 mg six hourly) and co-phenotrope (diphenoxylate hydrochloride 2.5 mg and atropine sulphate 25 μg, one tablet three times daily). The reported preferred opiate of dependence was heroin in 18 cases (intravenously in 15 cases), dihydrocodeine in five cases and methadone in one. Five of the heroin-dependent subjects also took dihydrocodeine, three took methadone and six also took temazepam. Of the 24 subjects only four (17%) successfully completed the detoxification.

Significantly more of the subjects on the lofexidine based regimen achieved a drug-free state than those on the chlordiazepoxide and co-phenotrope regimen (7/13 versus 4/24, χ^2, $P<0.05$).

Our general impression was that better control of withdrawal symptoms could potentially be achieved by commencing treatment at a higher lofexidine dosage and/or increasing the dose more rapidly. This warrants further study.

While this pilot study was undertaken in a specialist substance misuse unit in close

Table 2. General practitioners' diagnoses and percentage found to be correct histologically, together with number of important errors[a] and number of these incompletely excised.[b]

GP diagnosis	Percentage correct	Number of important errors[a] (number incompletely excised[b])
Cyst (*n* = 136)	*80.9*	2 (0)
Wart/keratosis/horn (*n* = 122)	*81.1*	1 (1)
Naevus (*n* = 116)	*67.2*	1 (0)
Papilloma (*n* = 94)	*28.7*	0 (0)
Skin tag/polyp (*n* = 82)	*61.0*	0 (0)
No diagnosis given (*n* = 74)	–	7 (2)
Benign connective tissue tumour (*n* = 68)	*66.2*	1 (1)
Basal cell carcinoma (*n* = 12)	*75.0*	0 (0)
Inflammatory, eg psoriasis (*n* = 8)	*75.0*	0 (0)
Squamous cell carcinoma (*n* = 5)	*40.0*	0 (0)
Miscellaneous (*n* = 4)	*25.0*	0 (0)
Malignant melanoma (*n* = 1)	*0*	1 (0)
Total (*n* = 722)	*59.1*	13 (4)

n = number of biopsies given diagnosis by GPs. [a]Malignancy unsuspected or misdiagnosed prior to histology. [b]Important errors incompletely excised.

liaison with a drug counselling service, this regimen could be easily undertaken in a primary care setting with the support of a local drug counselling service.

While it is recognized that interpretation of the results may be limited by the small sample size, this lofexidine based regimen may provide the practitioner with an effective alternative method of patient detoxification from opiates which minimizes problems potentially encountered with other regimens in common use.

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Pertussis in a four-week old baby

Sir,
Baby H was a full-term, normal delivery weighing 3.9 kg. Aged four weeks she developed a dry, 'sticky' cough and increasingly severe cyanotic attacks. Aged five weeks she was admitted to hospital. On admission baby H was apyrexial, but was noted to have a paroxysmal hacking cough. A clinical diagnosis of pertussis was made by a paediatrician familiar with neonatal pertussis in the Middle East (E M). Despite a first pernasal swab being negative, a second pernasal swab yielded a heavy growth of *Bordetella pertussis*; a throat swab gave a light growth.

Baby H became bradycardic during the bouts of coughing, the heart rate falling from 120 beats per minute to as low as 44 beats per minute, taking a few minutes to return to normal. This was accompanied by cyanosis, and the oxygen saturation fell to 64% on a pulse oximeter reading. She was given oxygen as required and prescribed a two-week course of oral erythromycin 50 mg twice daily. Her cyanotic attacks gradually became shorter and less severe, so that she was able to be discharged home after nine days.

Baby H's mother had had a severe cough with bouts of whooping which had begun three weeks before baby H's admission to hospital. The mother had never had pertussis infection as a child, and had received only diphtheria and tetanus immunization at a time when the side effects and sequelae of pertussis vaccine were under public debate. A pernasal swab was negative. The mother was given a two-week course of erythromycin 250 mg six hourly.

Baby H was the index case in a small epidemic of six cases so far: three siblings living in the same street aged between 14 months and eight years nine months presented to their general practitioner with a three-week history of severe cough when baby H was still in hospital. Two further unconnected cases living in different areas were notified at the same time. These cases were given a two-week course of erythromycin to reduce the carriage rate of the bacterium. Three secondary cases occurred (after the incubation period of pertussis). In the Isle of Wight the immunization target rate for pertussis of 90% has been surpassed.

Pertussis is a dangerous infectious disease that is well controlled by widespread immunization in industrialized countries. Outside industrialized countries and where immunization rates fall below 70% in developed countries epidemics occur every four to five years, and can be controlled only by widespread immunization; other measures, such as antimicrobial chemotherapy, offer only negligible benefit.[1] In the developing world it remains a source of high morbidity, with a mortality of up to 50% in infants under six months presenting with symptoms.[2] In babies aged less than three months paroxysms of cough may begin or end with apnoea; fatal asphyxia can occur.[3] Complications include central nervous system sequelae of anoxic brain damage, and lung damage.

This case is reported to emphasize the fact that pertussis may occur as early as four weeks of age, or even in the newborn, as there appears to be no inborn immunity.[3] Isolation of the causative agent remains the gold standard for the early diagnosis of pertussis. For this purpose a pernasal calcium alginate swab is preferred to a nasopharyngeal swab, with direct inoculation of a charcoal horse blood agar plate.[4] Longstanding cough of unknown aetiology is the main indication for pertussis serology (enzyme linked immunoabsorbent assay). Control of pertussis is now dependent on the use of acellular pertussis vaccine as the fourth and fifth doses of diphtheria, pertussis and tetanus immunization, given at age 15 months and prior to school entry, as licensed in the United States of America from late 1991.[1] Treatment of pertussis should be limited to the use of one of the three antibiotics erythromycin, ampicillin and co-amoxiclav, to which this pathogen has been shown to be most sensitive.[5] These antibiotics have no protective effect against the development of bronchopulmonary complications defined by the secondary bacterial flora, and therefore have no value in prophylaxis.

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Alternative contracts in the NHS

Sir,
I have followed with interest the correspondence[1-3] concerning the 1986 *British Medical Journal* articles[4-6] which I wrote with Denis Pereira Gray and Alan Maynard. Julian Tudor Hart describes 'two diametrically opposed paradigms [which] compete for the minds of young doctors':[1] these are characterized as a competitive market and a cooperative public service. He asserts that the former model 'by definition... entails winners and losers', and contrasts this with the latter in which 'bad practice could be resourced rather than punished.'[1]

Hart suggests that our interpretation of the 1986 proposal for a good practice allowance was incompatible with his vision of a cooperative public service. I cannot agree. A careful reading of our articles[4-6] will reveal that we expressly warned against the dangers of creating winners and losers; we urged that the good practice allowance be designed to achieve comparable standards of quality in all general practices; and we argued that poor practice should be corrected, not by financial punishment but by additional resourcing.

Hart writes 'when paradigms collide, some mutual incomprehension is probably inevitable'.[3] I want to suggest that such