

	Ong and Dunbar ² 1988	Colbridge and colleagues ¹ 1992		Menzies	
	North west England (n=115)	Overall (n=2638)	North west England (n=1424)	1992 North east England (n=1214)	1994 North east England (n=188)
Ampicillin	73 (63.5)	423 (16.0)	229 (16.1)	194 (16.0)	0
Amoxycillin	34 (29.6)	2274 (86.2)	1190 (83.6)	1084 (89.3)	172 (91.5)
Co-amoxiclav	6 (5.2)	434 (16.5)	232 (16.3)	202 (16.6)	94 (50.0)
Co-trimoxazole	79 (68.7)	1329 (50.4)	726 (51.0)	603 (49.7)	71 (37.8)
Erythromycin	112 (97.4)	2284 (86.6)	1231 (86.4)	1053 (86.7)	151 (80.3)
Tetracycline	34 (29.6)	343 (13.0)	159 (11.2)	184 (15.2)	25 (13.3)
Trimethoprim	24 (20.9)	1024 (38.8)	521 (36.6)	503 (41.4)	85 (45.2)
Cephalosporins	63 (54.8)	Data not aggregated in these surveys			35 (18.6)
Metronidazole	18 (15.7)	409 (15.5)	228 (16.0)	181 (14.9)	1 (0.5)
Chloramphenicol:					
Oral	12 (10.4)				
Topical	3 (2.6)	304 (11.5)	169 (11.9)	135 (11.1)	30 (16.0)
Benzylpenicillin	52 (45.2)	2249 (85.3)	1140 (80.1)	1109 (91.4)	179 (95.2)

co-trimoxazole. After about two years Bencard offered amoxycillin, and a little later Beecham, having stopped supplying ampicillin, offered free sachets of co-amoxiclav. Throughout this time Abbott supplied sachets of erythromycin. The table reflects this.

If it was ever thought desirable that doctors should have a standard pack of emergency drugs, provision by a central supplier—for example, at family health services authority level—would be effective. While a free supply of drugs would probably have the greatest impact on increasing the number of doctors carrying those drugs, many doctors would probably be prepared to purchase such an emergency pack, say every six to 12 months, in the knowledge that they were getting up to date material. As the *British National Formulary* is widely distributed, regularly updated, and recognised as an authoritative text perhaps it could contain a section giving guidance on drugs (not just antibiotics) suitable for general practitioners' emergency bags.

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- 2 Ong ELC, Dunbar EM. Antibiotics carried in general practitioners' emergency bags. *BMJ* 1988;297:901.
- 3 Chief Medical Officer. *Meningococcal infection: meningitis and septicaemia*. London: Department of Health and Social Security, 1988. (PL/CMO(88)2.)

May not be used when required

EDITOR,—It is reassuring to learn that the proportion of general practitioners carrying benzylpenicillin increased to 85.3% in the north of England.¹ One reason that might account for this is the practice of family health services authorities or health authorities, or both, of distributing phials of benzylpenicillin to local general practitioners. As part of a local survey we sent a questionnaire to all health authorities in Britain asking if they had distributed benzylpenicillin. Twenty one of 120 that replied had done so (response rate 89%). Interestingly, eight of these authorities are in the area covered by the survey. Five of the eight had distributed benzylpenicillin to local general practitioners in the period covered by M J Colbridge and colleagues' survey.

Altogether 372 out of 532 general practitioners in Birmingham replied to our survey (response rate 70%). Of these, 353 said that they carried benzylpenicillin. Most of them (335) remembered having received the phials distributed by Birmingham Family Health Services Authority in 1993.

Colbridge and colleagues did not ask whether parenteral chloramphenicol was carried in on call bags as an alternative to benzylpenicillin for allergic patients. Only 25 general practitioners in

Birmingham carried the drug. Many of the rest (206) said that they would not use the drug in primary care.

The authors refer to the crux of the matter at the end of their paper. Just because a general practitioner carries a drug does not mean that he or she will use it. Less than half of the Birmingham residents known to have had meningitis or meningococcal disease in 1993 received benzylpenicillin before admission. Meningococcal disease can be extremely difficult to diagnose in primary care. Even so, every opportunity should be taken to encourage the use of parenteral antibiotics by general practitioners.

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Penicillin is necessary for suspected meningococcal disease

EDITOR,—M J Colbridge and colleagues report an encouraging increase in the number of general practitioners in the north east and north west of England who carry benzylpenicillin in their emergency bags.¹ An increase in the use of penicillin before admission in suspected cases of meningococcal disease, to reduce mortality, is the desired outcome of campaigns to raise awareness such as that undertaken in the north east in October 1991.^{2,4}

The nature of the campaign varied among districts, with some districts providing general practitioners with benzylpenicillin in addition to written information and advice. In County Durham benzylpenicillin was sent only to general practitioners in Darlington district. In September 1993 a preadmission penicillin treatment pack was sent to all general practitioners and the deputising services operating in County Durham. The pack was a purpose designed red plastic box containing benzylpenicillin, chloramphenicol, and water for injection and an instruction card, and it had sufficient space for the storage of syringes and needles. Arrangements were made for used or

Use of penicillin before admission in cases of meningococcal disease in County Durham, 1990-4

District and time period	Patients with meningococcal disease	Seen by doctor before admission	Diagnosis suspected before admission by a doctor	Penicillin or chloramphenicol given before admission	Deaths
North Durham:					
Oct 1990-Sept 1992	28	16	6	1	3
Oct 1993-Mar 1994	11	8	4	1	0
North and south Durham:					
Oct 1993-Mar 1994	26	18	9	4	1

expired phials of the antibiotics to be replaced by the hospital pharmacies.

Data that we retrieved from hospitals' and general practitioners' case notes (table) and those reported by Strang and Pugh⁴ suggest that, although more general practitioners are carrying penicillin in their emergency bags, possibly as a result of campaigns to raise awareness, not all patients suspected of having meningococcal disease are receiving penicillin before admission. Consultants in communicable disease control should repeatedly remind general practitioners about the signs and symptoms of meningococcal disease and the importance of giving penicillin—or chloramphenicol in cases of known allergy to penicillin—before admission.

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- 2 Begg N. Reducing mortality from meningococcal disease. *BMJ* 1992;305:133-4.
- 3 Cartwright K, Reilly S, White D, Stuart J. Early treatment with parenteral penicillin in meningococcal disease. *BMJ* 1992;305:143-7.
- 4 Strang JR, Pugh EJ. Meningococcal infections: reducing the case fatality rate by giving penicillin before admission to hospital. *BMJ* 1992;305:141-3.

Follow up by telephone

Genitourinary medicine clinic gives results by telephone

EDITOR,—Jammie Nagaraj Rao discusses using the telephone to follow up patients.¹ Genitourinary medicine clinics provide open access. So that we can provide the necessary appointments for patients with problems suggesting a sexually transmitted disease within an acceptable time limit,² giving patients the results of laboratory tests by telephone is an essential part of the service.

In our clinic from September to November 1994 there were 1385 telephone follow up calls, which accounted for 13.2% (1385/10528) of "attendances." Doctors select patients who are unlikely to have an infection, do not require further tests, and can understand English to make a telephone appointment for a specific day to get their results. A list is generated so that case notes and results are available the day before the patient is expected to ring. Patients telephone on their allotted day and are asked to quote their clinic number and date of birth. To safeguard confidentiality, results are not given to any other person unless permission from the patient is recorded in the notes.

This service requires resources. The telephone system must have enough lines designated for giving results and should allow calls to be diverted easily to other members of staff. Receptionists are required for the administrative tasks, and trained staff must be available at all times when patients telephone for their results. Nurses are nominated to deal with telephone follow up and may spend considerable time explaining results and updating notes. Therefore telephone appointments must be

regarded as part of the workload. Problems can arise with such a service. Patients may be unable to get through on the telephone. They may justifiably become irritated if kept waiting, especially if they are telephoning from a call box or abroad and incur unnecessary expense. A policy must be agreed for patients who fail to telephone for results. Finally, the sifting out of patients who are quick and easy to deal with means that only patients with more complicated problems attend for follow up, which increases the consultation time.

Overall our patients appreciate the service. Most of them are young, fit, and in employment, and some are prepared to travel long distances to use the confidential service provided by a genitourinary medicine clinic. Reducing the number of visits to the clinic saves them time and money. Furthermore, if follow up by telephone was unavailable resources would have to be found to see these patients in the clinic. We think that more clinicians and patients could benefit from our experience.

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2 Monks A, Thin N, Trotter S, Pryce D. Report of the working group to examine workloads in genito urinary medicine clinics. London: Department of Health, 1988:20.

Phone clinic provides excellent support

EDITOR,—It is not only the United States that has implemented the idea of following up carefully defined groups of patients by telephone.¹ We have started what we call a "phone clinic" to follow up patients with cancer shortly after they have completed treatment, which aims at replacing a routine outpatient visit. We have shown that the phone clinic provides excellent support and effective medical surveillance in a defined situation in oncological follow up and has resulted in a decrease in medical outpatient attendances, which has allowed time for medical consultation targeted at patients in greatest need.²

We do not share Jammi Nagaraj Rao's view of the staff necessary for phone contact.¹ With proper planning, training, and record keeping it was not necessary for the phone clinic to be manned by senior medical staff. An experienced and trained nurse practitioner may enhance the service for patients with cancer as a high proportion of the patients need advice on support services not frequently offered by medical staff. There was no evidence of any adverse effects on medical care. Compliance and satisfaction among patients were high as none of the patients requested medical consultation.

Before too many phone clinics are established in place of routine outpatient follow up, however, we should ask whether the follow up is necessary at all. The answer will become apparent only from detailed examination of the content and outcome of routine follow up appointments; in many specialties, including oncology, the quest for this information is only just beginning.

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2 James ND, Guerrero D, Brada M. Who should follow-up cancer patients? Nurse specialist based outpatient care and the introduction of a phone clinic system. *Clin Oncol* 1994;6:283-7.

Side effect of quinine for nocturnal cramps

EDITOR,—Malcolm Man-Son-Hing and George Wells report a meta-analysis of the use of quinine for nocturnal night cramps in elderly people.¹ I wish to draw attention to lichenoid photosensitivity related to quinine, which is a poorly recognised but, I suspect, a relatively common side effect of this treatment. I first became aware of it in 1982, and until my retirement in 1991 I saw nine patients affected by it. All were elderly women taking quinine for nocturnal cramps. I have reported five of these cases previously.² The following points are worth emphasising: all nine patients had lesions on the dorsa of the hands (figure); none of the patients



Lichenoid photosensitivity related to quinine in 70 year old woman

initially associated the skin eruption with quinine, and most could be persuaded of the association only with difficulty; and the eruption cleared in all cases when quinine was withdrawn.

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2 Dawson TAJ. Quinine lichenoid photosensitivity. *Clin Exp Dermatol* 1986;11:670-1.

Liver biopsy

Interventional radiology teams can provide prompt analgesia and care monitoring

EDITOR,—In their editorial on whether ultrasound guidance for percutaneous liver biopsy is appropriate Guy Vautier and colleagues comment that "the biopsy is usually done in a radiology department, which means that the patient would be waiting to return to a ward without being observed."¹ We agree that it is inappropriate to leave patients unobserved after percutaneous liver biopsy, particularly because at least 60% of complications occur soon after the procedure is completed.²

We believe that observation and monitoring of patients after percutaneous liver biopsy are an integral part of the procedure. In our institution liver biopsies on thin, cooperative patients are performed in the wards by the gastroenterologists. Biopsies are performed in the radiology department on patients in whom they are likely to be difficult (because of obesity, variant anatomy, a small liver, or reduced cooperation) or who are likely to develop complications.

One of the advantages of performing liver biopsies under ultrasound guidance in the interventional procedures area of a radiology department is the presence of a dedicated nursing and radiological staff, who are well trained and experienced in monitoring and resuscitating patients. This dedicated monitoring is rarely available in busy medical wards but is vitally important in the

early recognition of complications. The presence of the patient in the radiology department ensures a rapid diagnostic evaluation (by ultrasonography or computed tomography) of any suspected complications if clinically appropriate. In our radiology department, patients who have had liver biopsies are closely monitored in the interventional radiology area immediately after the biopsy. Later they are accompanied back to the ward or short stay unit by a nurse for further observation.

The authors also state that guided biopsies require more resources than blind biopsies in terms of trained staff. We believe that a procedure in which up to a quarter of patients experience pain¹ demands appreciable clinical support. In our practice, patients who complain of pain during or immediately after liver biopsy guided by ultrasonography receive prompt analgesia. This is prescribed and supervised by the interventional radiologist and given by the radiology nurse. The choices of drug and dosage are based on the patient's body weight and clinical condition. Complications are dealt with in conjunction with the referring clinician.

We agree with the authors that certain criteria must be met when a decision is made on where percutaneous liver biopsies should be performed; these include suitable training of operators and appropriate care after the procedure. The ready availability of suitably monitored analgesia should also be considered. The implication that radiology is unable to meet these criteria is an oversimplification. The advent of dedicated interventional radiology teams has provided an environment in which pain and complications after procedures can be minimised. The inclusion of an experienced nurse in the team also allows for excellent monitoring of patients both during the procedure and immediately after. These features are particularly important in patients who are at high risk of complications.

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1 Vautier G, Scott B, Jenkins D. Liver biopsy: blind or guided? *BMJ* 1994;309:1455-6. (3 December.)

2 Piccinino F, Sagnelli E, Pasquale G, Giusti G. Complications following percutaneous liver biopsy, a multicentre retrospective study on 68,276 biopsies. *J Hepatol* 1986;2:165-73.

Require imaging guidance

EDITOR,—We were amused by Guy Vautier and colleagues' efforts to justify the continued use of blind liver biopsies and by their assertion that "the ideal biopsy may be one that is performed in the ward by the gastroenterologist using ultrasonographic guidance."¹ We believe that this is an issue in which the advantages of one option are so self evident that there is no justification for the large scale randomised trial suggested by the authors. In our opinion all biopsies should be performed by expert operators using imaging guidance, and nowadays few hospitals do not have the required skill—in the radiology department.

In our practice liver biopsies are performed as part of a routine ultrasonography list, taking no more than 20 minutes; are as atraumatic for the patient as is possible; have caused no important complication in eight years; and, when automatic biopsy guns are used, uniformly provide diagnostic samples. Direct ultrasonographic visualisation ensures that the needle is nowhere near the gall bladder or major vessels as the needle can be watched within the liver throughout the biopsy. Our patients are never left unobserved "while waiting to return to the ward"; this is a matter of good nursing organisation.