and dysuria in girls. Most venereologists would advise an intracervical swab for this purpose, since the cervix and not the vagina is the seat of the infection. A urethral culture and rectal culture for *Neisseria gonorrhoeae* should also be taken.

Professor Asscher does not mention chlamydial or trichomonal causes of dysuria and frequency. In a venereal disease clinic these pathogens are more common than the gonococcus as a cause of dysuria.

PAMELA WRAY

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SIR,—Professor A W Asscher's helpful account (10 June, p 1531) of the management of frequency and dysuria is welcome. May we, however, recommend a minor but important modification to his advice for diagnosing gonorrhoea as one of the causes? A cervical swab in transport medium would be preferable to a high vaginal swab; indeed, some special clinics no longer routinely examine vaginal swabs for gonococci. The following data support our case. The results of cultures from four sites in 368 women from whom gonococci were grown from one or more sites were as follows:

Site	Positive	Only site positive
Urethra	70%	3%
Cervix	87%	9%
Vagina	71%	4%
Rectum	36%	3%

The data show clearly that the cervix was the most productive site. Although quite a high proportion of vaginal swabs were also positive, this success is likely to have been due to the use of a selective medium preventing overgrowth of contaminants and also because the swabs were collected under direct vision.

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Comparison of the tine and Mantoux tuberculin tests

SIR,—The results of the comparison carried out by the Tuberculosis Subcommittee of the British Thoracic Association (3 June, p 1451) confirm the view that I have held for the past 10 years or more. I distinctly remember that the tine test on a man who later proved to have active tuberculosis was barely positive. Also from time to time I have Mantoux-tested young people whose tine tests have proved doubtfully positive and found that the Mantoux test gave an area of induration of 2 cm or more.

I think it is sad that the Schools Medical Service has gone over to the wholesale use of the tine test because of the ease of its administration since much scientific accuracy has been lost thereby. I myself as clinical medical officer have always insisted on doing the Mantoux test and I have to a large extent avoided the nasty, complicated, accelerated, and indurated reactions to the following BCG. These complicated reactions do cause

much stress to the individual boy or girl as well as to the child's family.

I feel that the routine use of the Mantoux test before BCG vaccination at the age of 11-13 could be more extensively used as a method of epidemiological surveillance of the child population at those ages. Case findings among the families of those children who have positive Mantoux tests would be rewarded more often with positive results.

I would therefore, from personal experience, advocate the return to routine Mantoux testing before BCG. We discussed this matter at a clinical medical officers' meeting in the Blackburn Health District on 6 June and it was the unanimous recommendation of all the medical officers present that we should return to using the Mantoux test as a routine. However, such a return to routine Mantoux testing may be difficult to accomplish on a national scale because of a shortage of recruits to the clinical medical officer grade. We ourselves in this district still experience such difficulties because we are currently advertising for two more clinical medical officers.

J HOUGHTON

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SIR,—We find the report of the Tuberculin Subcommittee of the Research Committee of the British Thoracic Association (3 June, p 1451) surprising and the conclusions difficult to accept.

In our opinion the tuberculin tine test, when carefully performed, provides a simple and reliable screening test. Indeed, as the authors themselves point out, there are other reports which conflict with theirs. One of the authors draws attention to an increased number of accelerated and severe local reactions which he finds among tine-negative subjects given BCG. In our hands accelerated reactions in non-reactors to the tine test are excessively rare. The reasons for these conflicting findings require investigation. Meanwhile we see no reason why those experienced in the use of the tine test should not continue to use it.

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Vision screening in children

SIR,—The title of the report by Mr A D Tibbenham and his two medical colleagues (20 May, p 1312) should have been "Screening of visual acuity." They have equated normal vision with the visual acuity (VA) of each eye. Normal vision involves much more. It is astonishing that there is no mention of binocular vision in an article entitled "Vision screening in children." This is going back to the bad old days before people realised the need of early diagnosis of defective binocular vision and the early treatment of squint. A child with an alternating squint may have VA 6/6 (or even 6/5) in each eye and, according to the authors, come in the category

of "normal vision." This is dangerous. Further, no mention is made of manifest hypermetropia. At an age (say 9) when the patient has 14 D of accommodation an effort of focus may disguise in distant vision much hypermetropia and such a child may be said to have normal VA; but it may lead to rebellious behaviour when the child is made to read or write.

We have to remember that normal vision has six essential attributes: (1) effortless normal VA for distance in each eye; (2) easy binocular vision with sustained convergence for near objects; (3) accommodation normal for age; (4) full visual fields; (5) good perception of colours; and (6) normal mental interpretation. It would be wise for the boys at either the 11- or 16-year screening to have their colour perception tested.

The eyes grow in length from about 16.5 mm at birth to about 24 mm at puberty, and the density of the lenses alters throughout life. VA depends on the combined correlation between curvature, refractive index, and length, so it is not at all surprising that variations in VA occur during childhood. The amazing thing is that this combination so often results in normal or near-normal visual acuity; but that is not the same as normal vision, which includes binocular vision developed during childhood.

THEODORE H WHITTINGTON

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*.*We sent a copy of this letter to Mr Tibbenham and his colleagues. A reply from Dr Gardiner is printed below.—Ed, *BMJ*.

SIR,—On behalf of my colleagues I would like to accept Dr Whittington's suggestion of a more accurate title. Of course we agree that we were not talking about the totality of normal vision which he describes so clearly.

May we add one improvement to his list—that is, that colour vision screening in boys is well worth doing at school entry? An undiscovered defect at that time may produce distress in their first months at school such as he describes for hypermetropes learning to read and write.

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Preventing fat embolism

SIR,—I have read with great interest your leading article on this subject (13 May, p 1232). We have found a strong positive correlation between high serum free fatty acid (FFA) concentrations and low arterial oxygen tensions up to 24 h after injury in uncomplicated patients following major long-bone fracture.¹ The reason for this relationship could be more than a casual one. The patient mobilises his FFAs as an emergency source of nutrient. The more severely injured the patient, the higher his energy requirements. This was demonstrated by the elevated FFA levels in our study. Furthermore, arterial oxygen tension was significantly reduced in these patients 12 and 24 h after injury.

Unbound FFAs, particularly oleic acid, are potent cytotoxic agents. Peltier² showed that death in experimental animals following infusion of FFA was due to disruption of pulmonary capillary endothelium. The increase in the serum FFA concentration is caused by an adrenergic response.³ Since individuals

vary in their response to trauma it is possible that a large adrenergic stimulus would release a significant amount of FFA into the circulation, inducing pulmonary damage with resultant hypoxia and even fat embolism syndrome (FES). The interesting observation of Myers and Taljaard¹ that alcohol seems to be a prophylactic in developing FES may be due to diminished amount of circulating unbound FFA as a result of decreased response to stress. Since FFAs are 99% albumin-bound Liljedahl and Westermarck² and Moylan³ recommend the use of albumin following trauma to bind FFA as well as to improve peripheral circulation. In the light of our findings their advice seems important.

Carlson and Liljedahl^{3, 7} have shown that treatment with nicotinic acid and guanethidine (adrenergic blocking agents) diminishes the rise in serum FFA concentration following noradrenaline infusion or trauma in dogs. On the basis of this finding we hope to continue our studies using small doses of adrenergic blocking agents in a randomly selected trial of severely traumatised patients to assess any therapeutic benefit.

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¹ Nixon, J R, and Brock-Utne, J G, *Journal of Trauma*, 1978, **18**, 23.

² Peltier, L F, *Surgery*, 1956, **40**, 665.

³ Carlson, L A, and Liljedahl, S O, *Acta Medica Scandinavica*, 1963, **173**, 25.

⁴ Myers, R, and Taljaard, J J F, *Journal of Bone and Joint Surgery*, 1977, **59A**, 878.

⁵ Liljedahl, S O, and Westermarck, L, *Acta Anaesthesiologica Scandinavica*, 1967, **11**, 177.

⁶ Moylan, J A, et al, *Journal of Trauma*, 1976, **16**, 341.

⁷ Carlson, L A, and Liljedahl, S O, *Acta Medica Scandinavica*, 1963, **173**, 787.

Partial meniscectomy preferred

SIR,—Interest in meniscal tears and their treatment has revived during recent years. The results of closed partial meniscectomy reported by Mr D J Dandy (29 April, p 1099) are very much in line with ours since 1975. An earlier series¹ encouraged us to improve our technique further in order to make closed meniscectomy swifter and neater with the same good primary result. We have developed a new set of instruments to be used in combination with a standard 5-mm arthroscope. The instruments are introduced on either side of the centrally placed telescope. The results in the first 18 consecutive patients have been compared with those in matched controls treated by standard open arthrotomy. (unpublished observations). Closed excision of bucket-handle or other tears is technically difficult; our first operations were time-consuming and we actually failed in three patients and had to finish the operation by the open method. After getting used to the new instruments we have now succeeded in bringing down the operating time to 15 min for both diagnosis and treatment in lateral bucket-handle tear. The convalescence after closed treatment is short: the mean durations of sick leave in our series were seven days (range 0-28, median 5) after arthroscopic excision and 41 days (21-112, median 30) in controls operated on by arthrotomy. At follow-up 13-75 (mean 39) weeks later knee function was found to be equally good in both groups. Consequently, a surgeon well versed in diagnostic arthroscopy has great therapeutic potential and the patient suffers little discomfort. We hope this will encourage wider

use of arthroscopy for the diagnosis of meniscal tears, which is now perfectly feasible even when the tear is located in the "blind" posteromedial region (unpublished observations).

Jackson² has stated in this journal that unnecessary meniscectomies do occur in spite of the known high incidence of joint degeneration several years after operation. Furthermore, we have found a three-fold increase in laxity and a 10% reduction in tensile strength in the medial ligaments after medial meniscectomy in the dog.³ Whether this also applies to man is not known, but anatomical studies of human knees serially sectioned as whole organs with all collagenous tissues in situ and examined under polarised light has disclosed intimate relations between the fibres from the medial collateral and capsular ligaments and the medial meniscus tissue (unpublished observations). This functionally integrated unit of collagenous tissue seems to be much less disturbed by partial than by total meniscectomy. Regardless of whether partial or "total," closed or open, the operation must be carried out under full visual control to avoid leaving residue capable of causing symptoms. Fortunately, arthroscopic excision of centrally located posterior residue has proved successful with our new technique, even when previous re-arthrotomy had failed to relieve the symptoms.

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JAN GILLQUIST

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Linköping, Sweden

¹ Gillquist, J, Hagberg, G, and Oretorp, N, *Injury*. In press.

² Jackson, J P, *British Medical Journal*, 1968, **2**, 525.

³ Oretorp, N, et al, *Acta Orthopaedica Scandinavica*. In press.

Treatment of pneumonia

SIR,—The article on pneumonia by Dr Colin Ogilvie (25 March, p 771) is in general both rational and practical, but the following observations and recommendations are perhaps open to criticism, and should be brought to your readers' attention:

(1) Needle aspiration of the lung is liable to produce a pneumothorax which may be lethal in a very sick patient with pneumonia. If it is vital to obtain a specimen of lung "juice" for microbiological examination transbronchial biopsy, using a fiberoptic bronchoscope, is usually a safer technique.

(2) Tuberculosis does not "predispose" to pneumonia.

(3) Amoxycillin is much more expensive than ampicillin and there is as yet no proof that it is clinically more effective in the treatment of pneumonia or less toxic. It should therefore not be specifically recommended in preference to ampicillin.

(4) There is no evidence that continuous antibiotic therapy for "several weeks" in widespread destructive pneumonia with abscess formation (for example, staphylococcal) is an effective or indeed a logical policy.² If the organism has already been eliminated by a shorter period of treatment it can safely be withdrawn; if not the infection is likely to have become drug-resistant and the treatment is not worth continuing.

(5) Dr Ogilvie's indication for oxygen therapy (an arterial oxygen tension of less than 10 kPa) seems a little extravagant—

8 kPa would have been more reasonable. On the same topic, it is wrong to equate an oxygen flow-rate of 2-3 l/min by nasal catheter with an inspired oxygen concentration (by Ventimask) of 28-30%—the true figure might be nearer 35%,³ and that difference could in some cases be critical.

(6) In the treatment of an infected (turbid) pleural effusion few respiratory physicians nowadays would advise intrapleural benzylpenicillin since the value of this form of treatment has never been confirmed, even in penicillin-sensitive infections. The simplest and most effective measure in this situation, if the effusion is large, is to insert a basal intercostal tube and evacuate all the fluid immediately, while giving appropriate antibacterial drugs by the systemic route.

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¹ Ogilvie, C M, *British Medical Journal*, 1978, **1**, 771.

² Boyd, D H A, *British Journal of Diseases of the Chest*, 1975, **69**, 259.

³ Green, I D, *British Medical Journal*, 1967, **3**, 593.

Uniform style for biomedical journals

SIR,—I write to support Miss Maeve O'Connor's plea (10 June, p 1552) that, in the citation of references in biomedical journals, the date should immediately follow the author. Citation methods which do otherwise do not consult the convenience of the scientist whose work provides the reason for the existence of the reference. Scientists find things from their mental filing system largely on name and date—"It's in the 1963 paper by so and so." It is time-consuming if a search has to be made through a lot of fine print in the reference to find the date inconspicuously buried in the volume citation.

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Schumann's hand injury

SIR,—May I be permitted a reply to Professor Alan Walker (27 May, p 1420)? On the evidence of his letter it appears that Professor Walker read our paper in haste and without full comprehension—how otherwise could he ascribe to us notions which we do not hold and opinions which we have not expressed? He feels that we obscured "certain issues," but this idea seems to flow from that lack of understanding which is liable to arise when different disciplines meet.

The first part of Professor Walker's letter deals with Schumann's cerebral illness, though he did not put it that way. Professor Ulrich and I made it quite clear that we were dealing with the condition of the composer's right hand, and we cannot believe that anyone with knowledge of medicine would have supposed that we were attempting to alter Slater and Meyer's diagnosis—namely, general paralysis of the insane. We were trying to elucidate the site and nature of the lesion responsible for the disability in the right hand.

We localised the lesion to the right posterior interosseous nerve, a conclusion supported by the many neurologists who have heard our communications on the subject. Mr K I