2 Lord M, Foulston J. Surgical footwear: a survey of prescribing consultants. *Br Med J* 1989;**299**:657. (9 September.)
3 Wenger DR, Mauldin D, Speck G, Morgan D, Lieber RL. Corrective shoes and inserts as treatment for flexible flat foot in infants and children. *J Bone Joint Surg [Am]* 1989;71:800-10.

SIR,—As the chief executive of one of the largest companies manufacturing bespoke orthopaedic footwear for the NHS I was interested in the articles by Mr R G S Platts[1] and Ms Patricia S Costigan and colleagues.[2] Many of the comments made are not new, but the incidences often quoted of footwear not being acceptable to the patient and never being worn do not quite match up with the high percentage of repeat orders that we and other contractors produce. Indeed, in many instances we have been manufacturing orthopaedic footwear for the same patient for over 20 years.

It is often stated that the orthotist has a vested interest in the monetary value of the products being prescribed and supplied to the patient. Theoretically, the orthotist is the "pharmacist," supplying the patient only with what the consultant specifies. If the orthotist is called on to agree with the consultant a correct specification for the patient, then it should be in total confidence on the part of the clinician that the orthotist has the integrity to serve the needs of the patient irrespective of high value or low value "sales."

It is interesting to note that there is no mention in either letter of the value for money policies operating in many health authorities today, which are reducing the cost of bespoke orthopaedic footwear by 20-25%—this in spite of no reduction in specification of materials, fabrication, etc, or of the standards of ever increasing quality assurance that are quite rightly demanded by the NHS. In spite of this, we are still investing time and money in research into computer aided design and hope ultimately to provide an even better service to the patient.

Regarding "delays" in supplying orthopaedic footwear, the national contract conditions require that new surgical footwear should be supplied within six weeks. We, and many other companies, produce made to measure footwear within four weeks. Mindful of the fact that 95% of the fabrication is handwork and that there could be one or more fittings before completion, the overview of delivery must be taken in the context of manufacturing hours.

Many companies today, this one included, produce orthopaedic footwear in a wide range of styles, colours, fastenings, different weight of finish, etc. It is for the clinician, orthotist, and patient jointly to decide which is best for the patient: the clinician has the authority to insist on this, and reputable companies will be happy to comply.

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1 Platts RGS. The NHS boot. *Br Med J* 1989;**299**:932-3. (14 October.)
2 Costigan PS, Miller G, Elliott C, Wallace WA. Are surgical shoes providing value for money? *Br Med J* 1989;**299**:950. (14 October.)

SIR,—My firm has been a contractor to the NHS since it was set up in 1948. We have been perturbed by the great changes that affect the supply of surgical footwear to patients through hospitals. Dr S Soorikumaran is right to suggest that a survey of the views of those in the commercial sector who make both custom made and off the shelf foot orthoses would be helpful.[1]

The number of specialist orthopaedic shoemakers, who are likely to succeed in giving patients a good fit because of their local and intimate knowledge, is set to decline sharply in the next year or so. This will be caused by the latest reorganisation, whereby the hospitals are encouraged to seek one contractor who can supply the full range of orthotic and surgical services; therefore specialist firms will not be able to compete. At least one firm in Edinburgh has closed down as a result of this policy, and many more closures are likely.

In my own small firm we believe that the orthotist who measures the feet should also make the lasts; thus, he knows more details than an orthotist, who would have to write and send details to a centralised workshop. In many parts of Europe virtually every small city and town has its own orthopaedic shoemaker. Patients are referred to him by the local doctors in the hospitals and the shoes are paid for by the patients' private insurance. This leads to much more flexibility than exists here, where the NHS more or less has a monopoly. Patients often have to pay a small percentage: this gives them much more respect for the shoes and they are more likely to care for them.

Dr R G S Platts suggested that computerisation could help in making orthopaedic footwear more acceptable, as it often has unpleasant connotations to many patients.[2] We make a lot of non-NHS footwear and patients enjoy visiting our shop; we then trade under the name James Taylor and Son.

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1 Soorikumaran S. Surgical footwear. *Br Med J* 1989;**299**:976. (14 October.)
2 Platts RGS. The NHS boot. *Br Med J* 1989;**299**:932-3. (14 October.)

Fetal infection after maternal reinfection with rubella

SIR,—We wish to add a further case of congenital rubella syndrome to those reported recently by Dr J M Best and colleagues.[1]

A 26 year old primigravida had been vaccinated against rubella at the age of 13. When she started work as a district nurse in 1985 a blood test was positive for rubella IgG by enzyme linked immunoassay (ELISA) (Abbott, Chicago). She became pregnant in March 1988 and at 12 weeks' gestation rubella IgG was detected by radial haemolysis at >15 000 IU/l, but the specimen was not tested for rubella specific IgM. She did not suffer from any febrile illness, rash, or lymphadenopathy during the pregnancy. At 16 weeks amniocentesis was performed because of a raised serum α fetoprotein, and the results were normal. At 32 weeks she developed hypertension, which was treated with labetalol. At 35 weeks failure to control the hypertension and increasing evidence of placental insufficiency and fetal growth retardation resulted in the infant being delivered by caesarean section.

The baby had a birth weight of 1800 g (less than the third centile) and head circumference of 31 cm (between the 10th and third centiles). There was a widespread purpuric rash and the platelet count was 87×10^9/l. The spleen was palpable 1·5 cm below the left costal margin and the liver 2 cm below the right. The baby made good progress and was breast feeding well by 5 days of age. An *x* ray film of the skull showed no signs of intracranial calcification. Tests performed at 1, 7, and 14 weeks showed evidence of complete bilateral sensorineural deafness. There were no cataracts, but funduscopy revealed bilateral retinopathy. No cardiac murmur was present at birth but at 6 weeks a murmur was heard in the pulmonary area between the scapulae. A cardiac ultrasound scan was normal, and the murmur was assumed to be evidence of peripheral pulmonary stenosis. At 4 months the baby weighed 5·6 kg (between the 10th and 50th centiles) and had a head circumference of 39·8 cm (between the 10th and 50th centiles). Investigations at birth (table) showed evidence of congenital infection with rubella, but no virus was isolated from the urine or the throat swab submitted for culture. There was no evidence of maternal or fetal infection with cytomegalovirus or toxoplasma.

Results of tests for infection with rubella in mother and baby

Date	IgG by radial haemolysis (IU/l)	IgG antibodies	IgM antibodies*
Mother:			
24 Nov 1988†	30 000	+	+
2 Dec 1988	27 860	+	+
Baby:			
23 Nov 1988	Not done	+	+
13 Dec 1988	Not done	+	+

*All specimens were found to be positive by two different commercial methods of enzyme immunoassay and negative for rheumatoid factor.
†Also IgM positive by antibody capture radioimmunoassay.

Postnatal blood samples from the mother were positive for rubella IgM. Unfortunately, the blood sample from the first trimester was not available for retrospective IgM testing so the exact time of maternal infection was difficult to establish, although the clinical features in the infant were compatible with infection in the first trimester. There was no history of contact with rubella or clinical illness.

This case fits the criteria for reinfection suggested by Dr Best and colleagues. An unusual feature was the persistence of maternal rubella IgM till after delivery; usually the levels of IgM detected after reinfection are low and do not last for very long. The serology of rubella infections is still confounded by many problems. Testing of IgG subclass and avidity is helpful if specimens from the first four weeks of infection are available.[2] In our patient the avidity tests for rubella antibodies were inconclusive as the infection was presumed to have occurred some months previously. This emphasises the importance of proper documentation of rubella vaccination and previous rubella tests as they may be the only clue to reinfection.

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1 Best JM, Banatvala JE, Morgan-Capner P, Miller E. Fetal infection after maternal reinfection with rubella. Criteria for defining reinfection. *Br Med J* 1989;**299**:773-5. (23 September.)
2 Thomas HIJ, Morgan-Capner P. Rubella-specific IgG subclass avidity ELISA and its role in the differentiation between primary rubella and rubella reinfection. *Epidemiol Infect* 1988;**101**:519-8.

Cyanoacrylate tissue adhesive and facial lacerations

SIR,—I would like to add to Mr David Watson's valuable report on the use of cyanoacrylate tissue ahesive for closing facial lacerations in children.[1] This method of wound closure is popular with those familiar with tissue adhesives and is easily learnt.

Two years ago I performed a study on the use of such adhesives for wound closure in a large general practice. Forty three patients were divided into two groups to compare tissue adhesive with traditional methods. We compared the time for wound closure and the cosmetic appearance of the scar at six weeks. Unfortunately, the numbers of patients did not allow a valid statistical analysis, but in the 22 patients whose wounds were closed by tissue adhesive the results broadly mirrored Mr Watson's. Twelve of these wounds were on the head and neck; and of the 22, 11 would otherwise have been sutured. Three of the 22 wounds broke down but all were reclosed successfully. Both