Whatever genuine differences there may be within the medical profession about the treatment of breast cancer I think that all women who develop this disease have the right to be fully informed, without prejudice, of all of the treatment options that are available.

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AUTHORS' REPLY,—Dr Price is correct in stating that controversy surrounded the launch of the Cancer Research Campaign adjuvant breast cancer trial as he was one of the leading proponents. He does not, however, state in his letter that his points were fully addressed at the time[1] and that, at least on this side of the Atlantic, the majority of patients being treated for early breast cancer did not receive any adjuvant systemic therapy.[2] Indeed, in 1980 the viewpoint of the majority was that adjuvant chemotherapy, particularly cyclophosphamide, methotrexate, and fluorouracil, probably did more harm than good.[3] It has subsequently been shown by the world overview of adjuvant therapy in early breast cancer[4] that polychemotherapy is of little benefit in women over the age of 50, who comprised two thirds of the Cancer Research Campaign trial. It can also be argued that cyclophosphamide alone is valuable to only a small proportion of those who receive it, but at least the advantage has been shown in all subgroups in an overview of the Cancer Research Campaign and original Nissen-Meyer trial and the toxicity is mild.[5] Treatment with cyclophosphamide, methotrexate, and fluorouracil is also beneficial to only a small proportion of the patients who receive it and yet all have to experience the unpleasant side effects. Judging by recruitment (2240 patients in five years), the Cancer Research Campaign trial was certainly not considered unethical by the vast majority of British clinicians, and it must be borne in mind that we only now have the evidence on systemic therapy from the world overview because many patients were randomised into controlled trials.

The ethical committee at King's did receive a full protocol summarising the arguments for and against systemic therapy, but it was evidence of the severe emotional difficulties patients were experiencing in learning of the uncertainty of treatment that made the committee waive the otherwise universal requirement of informed consent. Despite Dr Price's viewpoint the issue of informing patients is not cut and dried. To quote a recent editorial: "To inform someone about clinical disagreement when he is not in a position to make a rational choice seems foolhardy."[6] When the medical specialists are divided and uncertain about some aspects of treatment, is it right to just hand over the decision making to the patient, expecting her to be able to come to a rational decision at a time of great anxiety?

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Ignorance about listeria

SIR,—In a recent editorial Dr P J Wilkinson was quite outspoken in denouncing the substantial ignorance about listeria and the lack of a sound basis for translating the flourishing "listeria hysteria" into rational measures for the control of listeriosis.[1] An open question, in particular, is the origin of sporadic cases of listeriosis, which with very few exceptions[2,3] have not been linked with the consumption of any particular food.

We have recently had the opportunity to report a case of sporadic foodborne listeriosis in a 54 year old woman admitted to intensive care with clinical symptoms of meningitis. *Listeria monocytogenes* serotype 4 was cultured from her cerebrospinal fluid, and treatment with ampicillin plus gentamicin led to complete recovery within two weeks. With the help of her relatives we examined the remainder of some foodstuffs eaten by her before the onset of her illness which had been kept refrigerated. Two strains of *L monocytogenes* were isolated, both of serotype 4, one from a sample of sausagemeat and the other from a sample of fish.

At the Pasteur Institute the clinical isolate and the fish isolate were found to share the same phage pattern (340/108/2389/3552/47/52/107/1444/312) whereas the meat isolate was susceptible to the same first seven phages but was not lysed by others, including phages 1444 and 312. At the same time we examined the three isolates by restriction endonuclease analysis of chromosomal DNA, a technique that has already been used in our laboratory to confirm a case of hospital cross infection with phage untypable *L monocytogenes*.[4] With three different endonucleases (*BamHI, EcoRI, and HindIII*) the clinical isolate showed DNA fingerprints identical with those of the fish isolate but different from those of the meat isolate. Neither the fingerprints shared by the clinical and the fish isolates nor those exhibited by the meat isolate were identical with any of the 17 *L monocytogenes* isolates tested in our laboratory during the past two years.

Both phage typing and DNA fingerprinting confirmed the foodborne origin of this sporadic case of *L monocytogenes* meningitis and linked it with the consumption of fish (which is an unusual source of foodborne listeriosis), excluding the strain isolated from meat as the cause. Most probably the survival and transmission of the organism was due to undercooking, as the fish had been eaten and then stored in the refrigerator after having been steamed. Moreover, these data suggest a maximum incubation period of three to four days, in agreement with other findings,[2] but in contrast with a time of one to several weeks estimated by a WHO working group.[5]

Given the inadequacy of serotyping and the high proportion of phage untypable strains,[6] public health reference laboratories should assume the task of routinely applying modern typing techniques, such as DNA fingerprinting, analysis with DNA probes,[7] or isoenzyme analysis,[8] to understand more about transmission of listeria and improve the control of human listeriosis.

We thank Dr Jocelyne Rocourt, Pasteur Institute, Paris, for phage typing.

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Don't put your daughter into medicine

SIR,—Dr Mary Mather's personal view[1] has prompted me to give my own. Three of my five daughters have chosen medicine as a career; two of them are working full time in their chosen specialties of hepatology and radiology, and both have two children under 5; the third has recently completed a punishing year as a houseman.

Three factors made possible my own career in medicine, during which I have always worked full time and have brought up a large family. Firstly, a supportive husband; mine is an academic in medicine, but the profession is immaterial as long as he is keen for you to have a full time career. Secondly, consistent home support, in my case a resident mother in law. I was lucky: my daughters pay much of their salary to someone else to help with their children. Finally, living close to work and being able to slip home for short spells. I enjoyed being at home with my young children but never wanted to be there all the time. I have been a better mother and a much appreciated one as a result.

Criticisms of a career in medicine for women include rigidity of jobs and employers, limited availability of mainstream part time jobs, and difficulty in returning to work after a break in service; all this is true to some extent. I was in grant funded research for 10 years and could have worked part time. There are many such options and part time training schemes exist. The entrenched attitude of some colleagues should not deter you. My view is that once you organise your