rubbish) are added to the bonfire—a not uncommon practice—an increased range of carcinogens and other toxic substances is likely to be produced (such as cyanide,² lead,³ and, in one particular circumstance, apparently even dioxin,⁴ the Seveso poison). Having contaminated the atmosphere for up to a mile around, some of these toxic substances then settle on the lawns, fruit trees, and vegetable plots of our gardens, and stream through larder vents and open windows to land on food and furniture within the house. Plainly, those guilty of perpetrating this anti-social act are public enemies, although most are probably unwittingly so, never having received any education on this subject.

In addition to any carcinogenic risk, repeated exposure to bonfires could well threaten respiratory health. The irritant gases produced include certain aldehydes and various oxides of nitrogen. Apart from health risks, however, the sickly, evil, and highly characteristic smell of bonfires is alone sufficient to merit their condemnation.

The Clean Air Act of 1956 dealt with bonfires in a patently unsatisfactory manner. (They are permitted unless they cause “a nuisance to the inhabitants of the neighbourhood.”) We therefore rely on self-restraint and common sense to see that bonfires are kept to the minimum. The point to be emphasised is that giving up chain-smoking bonfires is infinitely easier than giving up cigarettes; most garden refuse can be composted, and unrottable material can usually be dumped at a nearby householders’ tip.

The medical profession is in an ideal position to educate people on the health risks of bonfires, and it is to be hoped that this opportunity is exercised to the maximum. The patient who is cautioned against cigarette smoking can easily also be warned about other sources of smoke such as bonfires. A suitable hand-out could be the Henry Doubleday Research Association’s pamphlet “Give up smoking bonfires—make compost and leaf-mould instead” (obtainable from Lawrence D Hills, Convent Lane, Bocking, Braintree, Essex).

I seem to be conducting something of a lone battle against the bonfire, and I should be extremely grateful if any reader who would support a stricter control of bonfires would send me a postcard incorporating a statement to that effect, indicating, if appropriate, that he is medically qualified. If sufficient support materialises, this would make an influential “petition,” and how best to make use of it would be given careful consideration.

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¹ Pybus, F C, *Medical Proceedings*, 1964, 10, 242.

² Symington, I S, et al, *Lancet*, 1978, 2, 91.

³ Duell, W, *Journal of the American Medical Association*, 1978, 239, 144.

⁴ Gould, D, *General Practitioner*, 1978, 23 June, p 44.

SIR,—In the leading article, “Breathing other people’s smoke” (12 August, p 453), you say that “Fortunately some authorities . . . have recognised the rights of the non-smoking majority. . . .” It is, perhaps, worth noting that this enlightenment does not extend to universities. At Kent University, despite requests extending over two years and the official support of the Students’ Union, smoking is still allowed in all seminars and many lectures. Furthermore (and given the

importance of the common room in student life, this is even worse), at least one master would rather keep rooms locked and empty than allow non-smoking undergraduates to use them as an alternative to the smoke-filled junior common room. Are things this bad at medical universities?

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SIR,—The leading article (12 August, p 453) on “Breathing other people’s smoke” seems both timely and pertinent to my hypothesis (19 August, p 567) that nitrous fumes may be a factor in cot deaths. Both burning gas fires and cigarettes emit nitrous fumes. Cigarette smoke contains between 145 and 655 ppm oxides of nitrogen.¹

The review of evidence shows that more respiratory illness occurs in children whose parents smoke. A recent study² showed that respiratory infections during the first year of life were closely related to parents’ smoking habits in a way that was independent of parental respiratory symptoms, social class, or birth weight. There was also a dose-response relation between parental smoking and infant respiratory infections. An earlier prospective study of hospital admissions during the first year of life found a significant excess ($P < 0.001$) of bronchitis and pneumonia in infants of mothers who smoked.³

It is interesting that the research and development division of the British Gas Corporation (19 August, p 567) are pursuing wider and more detailed studies of indoor air quality. Studies of air quality and especially nitrous fume levels in small poorly ventilated rooms heated by different appliances (including cookers) with and without different levels of cigarette contamination would be particularly pertinent. It would be interesting to know also how often cot deaths occur in cold weather, in cramped poorly ventilated accommodation, with gas fire heating or cooking, and where one or both parents smoke.

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¹ Haagen-Smit, A J, Brunelle, M F, and Hara, J, *Archives of Industrial Health*, 1959, 20, 53, 399.

² Colley, J R T, Holland, W W, and Corkhill, R T, *Lancet*, 1974, 2, 1031.

³ Harlap, S, and Davies, A M, *Lancet*, 1974, 1, 529.

Self-poisoning by tobacco

SIR,—The smoking of tobacco produces a multiple, complex (self-) poisoning. Carbon monoxide and vaporised tobacco tar and nicotine are the main poisons in tobacco smoke. These are withdrawn into the mouths of all smokers, and a proportion is inhaled into the lungs of inhalers, who constitute some 90% of regular cigarette smokers. (I was a cigarette inhaler for 12 years).

Poisoning of the human organism constitutes a disease, and our whole function as a profession is to prevent and cure disease however this has been acquired. How disastrously we have failed to do our job where tobacco-smoke poisoning is concerned is measurable in the billions who now suffer from this disease and who have died from its complications, which are mainly bronchitis

with emphysema, coronary heart disease, and cancer, especially of the lung.

What makes our failure inexcusable is that we know how to prevent and cure tobacco-smoke poisoning: by preventing the entry of tobacco into the country. This would be an immense task, but it could, and should, be done. As I pointed out 27 years ago, “A great many people have given up smoking with outstanding benefit to their health, so why not nations?”

Unfortunately the Government, a lay body with a great many preoccupations, was clearly not informed sufficiently about the health damage caused by smoking and has used the powerful craving for tobacco to extract from (sick) smokers enormous sums of money by way of tax. This, of course, is immoral; but we are the real villains, the grossly inefficient watchdogs of the nation’s health. We have let down the people grossly. We must demand the quick and total abolition of the death-dealing disease, tobacco smoking.

Up to now we have held the bridge against the smoking of cannabis and opium, but our defences against that other powerful and toxic drug of addiction, tobacco, have been almost hopelessly breached. It is high time we put that right.

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¹ Johnston, L, *Lancet*, 1953, 2, 571.

Health of King Henry VIII

SIR,—With reference to the preamble of your leading article “Preventing Rh haemolytic disease” (29 July, p 307), we wish to declare an historical interest in the relevant medical theories concerning King Henry VIII.

The King married six times between 1509 and 1547 (from accession to his death). Notwithstanding two male births—namely, Henry Fitzroy, an illegitimate son by Lady Elizabeth Blount, and Edward VI, by Jane Seymour—who both died before reaching adulthood, the total known births surviving to maturity numbered just two. These were both females and firstborn.¹ The total number of surviving births to the King—four—over a period of 38 years is far below average in contemporary, or near contemporary, society.

Although there is strong evidence of an Rh incompatibility with the first wife, referred to in your preamble,² and the additional possibility of syphilis, since discounted with some authority,³ neither of these factors may be relevant to a primary question which represents the main purpose of our letter. We wish to inquire, from a genetic point of view, whether a detailed comparable medical history is known of a man whose relevant offspring (in this case, the appalling number of some 12 known fetuses, including miscarriages possibly due to a bad obstetric history) were either stillborn or died neonatally or failed to reach maturity in the male line over a long period and by several (at least four) wives? Without wishing to labour the obvious, Elton’s comment,² “the persistent and fatal sickness of the Tudor stock,” just will not do.

We are interested in the possibility of a congenital complication due to some genetic impediment which resulted in the non-survival of the issue of Henry VIII over the period of all his marriages, and his later failure to sire children with two other wives.

New information has recently emerged

which may throw some light on this possibility. The evidence, in the form of messages in a secret method of communication, was concealed for posterity by Hans Holbein the younger, court painter to King Henry VIII. Expert opinion seems to leave little room for doubt about the existence and origin of the messages. One part message concealed in Holbein's portrait of the King in the National Gallery of Rome is interpreted as: "The King's obsessiveness [which the artist appears to relate to the remarriages] unbalances him. Most of his extremes of behaviour are concealed. He has two secret 'love-nests.' The central cause is a sexual impediment [in 1540]."

Consensus of opinion among authoritative historians seems to be that the bad obstetric and birth record might have been due to contemporary lack of obstetric knowledge and antenatal care. This undoubtedly must have been a factor. We suggest, however, that in the light of all the evidence this may not have been the only, or even the prime contributing cause throughout all the King's marriages, as Holbein carefully appears to imply.⁴ Holbein further appears to comment that the King's sexual interest was not significantly diminished in 1540, which might contradict Maclennan,¹ who postulates sterility rather than impotence in the King.

In view of our interest in the King's extraordinary medical history, we would like, through the medium of this correspondence column, to ask colleagues specialising in genetics, and others, for relevant information or plausible conjecture on the central puzzling aspect of the King's dead children, so that we may be enabled to continue our research.

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¹ Cokayne, G E C, *The Complete Peerage*, 14 vols. London, St Catherine Press, 1910-1960.

² McLennan, H, *Medical History*, 1967, 11, 66.

³ McNulty, A, *King Henry VIII: A Difficult Patient*. London, Johnson, 1952.

⁴ Leslau, J. In press.

Haemodialysis-triggered asthma

SIR,—We were interested to read the report of haemodialysis-triggered asthma by Dr P Aljama and his colleagues (22 July, p 251) suggesting that the polyacrylonitrile (PAN) membrane of the Rhône-Poulenc RP6 dialyser is less likely to cause pulmonary leucostasis than the Cuprophane dialysers. Arterial hypoxaemia, which characteristically occurs within the first hour of haemodialysis, may have serious consequences for severely ill patients with compromised cardiopulmonary function. Although stable patients on maintenance haemodialysis tolerate this adverse change, it is clearly important to discover which of the dialyser membranes is "safest" in this respect. It would therefore have been additionally interesting had the authors included blood gas measurements in this study, particularly as the same group recently reported no difference in the fall in arterial oxygen tension between PAN and Cuprophane dialysis.¹

The mechanisms involved in dialysis-induced hypoxaemia remain unclear and complement activation and pulmonary leuco-

embolism² may not be the whole story. We have documented marked falls in arterial oxygen tension using Cuprophane coil dialysers without concomitant leucopenia. Although dialysis-induced thrombocytopenia is an inconstant finding, it is possible that platelet and leucocyte release of histamine³ or serotonin⁴ contributes to small airways constriction and increased closing volumes.² Accumulation of acetate may exert a further cardio-depressive action.⁵

We agree, however, that trials of other membranes are worth while; our preliminary findings are that arterial hypoxaemia is less severe when PAN is used in place of Cuprophane.

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¹ Aljama, P, et al, *Proceedings of the European Dialysis and Transplant Association*. In preparation.

² Craddock, P R, et al, *New England Journal of Medicine*, 1977, 296, 769.

³ Grant, J A, et al, *Journal of Immunology*, 1975, 114, 1101.

⁴ Lawson, L T, et al, *Proceedings of the European Dialysis and Transplant Association*, 1966, 2, 63.

⁵ Aizawa, Y, et al, *Clinical Nephrology*, 1977, 8, 477.

Sexual pressures on children

SIR,—The four letters (12 August, p 499) criticising an earlier letter from members of the Responsible Society seem muddled. Pace the Reverend J B Metcalfe, what is at issue is not "premarital sexual intercourse" (with its implication of pending marriage) but intercourse between adolescents who are usually not contemplating marriage at all. Lady Brook's and the immediately succeeding letter make clear that the Brook Advisory Centres "refer" girls for abortion, so it is disingenuous to take umbrage at the suggestion that they "provide" it. Dr Felicia D Hutchinson and others in that third letter state that 99% of the under-16 girls who visit them have "already had a sexual experience" and 1 in 5 are pregnant but later that they see much of their work with the young at the Brook Advisory Centre "as a means of buying time for them to mature . . . and make an informed decision as to how to act responsibly." But if 99% are already sexually experienced and 1 in 5 pregnant how is time bought and what informed decision is this that they take and as to what responsible act?

The same three doctors find use of the term children in the context of sexual activity to be emotive, but their own reference to girls under 16—the main subjects of their letter—as sexually mature adolescents instead of as children is as much a fudging of the issue as their use of termination instead of abortion. The usage of "children" to which they object seemed not to trouble Madeleine Simms, who uses the word herself but is concerned with the Responsible Society members' misrepresentation of the Brook Advisory Centres and other bodies for political (sic) purposes. Will she tell us which political party she thinks is using the Responsible Society as a front?

To be more positive: it seems to have escaped the attention of Ms Simms and Dr Hutchinson and others that if an organisation run by adults, some of them doctors, offers advice on sex, and in particular on contraception, to adolescents and is generally known to do so it can properly be described as "promoting juvenile sex" and as doing so

among many adolescents who, as the three doctors indicate, never come into direct contact with the organisation. Ms Simms states that the Brook Advisory Centres and other bodies take the view that "if adolescent (or any other) sexual activity does take place, then contraception must be used unless both partners positively desire a child." How, I wondered, does one negatively desire a child? And note: "must be used" (my italics). Lady Brook says that the centres "are primarily concerned with helping young people to accept the responsibility of contraception" (again my italics). It is interesting therefore that Dr Hutchinson and her two colleagues, who work in the centres, state that "the young are disturbingly anticontraceptive, believing romance is all." Dear me, harbouring romantic notions! And more important: the centres are apparently failing to achieve what Lady Brook states is their prime concern and what Ms Simms says is a must for all copulators. Could the teenagers who go to the centres, I wonder, be wiser than those who purport to help them? Do they at least know in their hearts that there is something to sex finer than mere copulation, deeper than counselling, and referral? Because a similar distaste for contraceptives of any kind is reported in American teenagers.¹

I should like to end with a reference to two recent articles. The first¹ states that in 1978 there will be 1 000 000 teenage pregnancies in the USA, 300 000 ending in induced abortions, 100 000 in spontaneous abortions. Some of the pregnant children will be only 12 years old. It is estimated that there are 630 000 American girls under 15 who are sexually active. The second article² contained a diagram illustrating the tracing of 35 cases of gonorrhoea in East Anglia following a visit to a clinic by one sufferer. She was 14 years old. She is shown as having had intercourse with 15 males: intercourse, that is, relevant to the contact tracing—she may well have had intercourse with many more males before her gonorrhoeal episode. The diagram is captioned "Fun in the Fens."

I confess to being nauseated by the thought of American teenage girls, some as young as 12, having 800 induced abortions every single day of 1978, and of a 14-year-old child having intercourse with 15 separate males in quite a short period. The Rev Metcalfe may be right: perhaps I am reactionary or in my dotage; perhaps I am not seeing things in "sober perspective." Or Ms Simms may be right: perhaps I am nauseated because I do not understand my own 12-year-old daughter (though I hope I may be allowed to love her). But then too nausea at the thought of promiscuity, abortion, and gonorrhoea in girls of 12, 13, and 14 is perhaps the right and proper reaction in a civilised society. Clearly, of course, we do not now live in one.

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¹ *Journal of the American Medical Association*, 1978, 239, 1477.

² Reynolds, V J, *Update*, 1978, 1 August, p 327.

SIR,—With reference to your correspondence (12 August, p 499) regarding sexual pressures on children and the replies from the Brook Advisory Centres to the Responsible Society's letter, I would like to tell you a little of the