contraindication to its use); and is said to be commoner in patients with rheumatoid arthritis. Formulations of corticosteroids with drugs like aspirin and phenylbutazone are particularly dangerous.

Various measures can be taken to avoid dyspepsia with these and other drugs. Paracetamol is widely used as an alternative to aspirin but needs to be given in larger doses. Dextropropoxyphene and ethoheptazine, popular for the relief of moderate pain, may also be safer but are not entirely free from side effects. The routine use of alkalis when the more powerful anti-inflammatory drugs or corticosteroids are being used has been recommended; some drugs—for example, phenylbutazone—can be obtained with alkali incorporated. Enteric-coated preparations of aspirin, phenylbutazone, and prednisolone are available, but are considerably more expensive and may cause trouble in the small bowel where they dissolve; they should be reserved for patients known to be sensitive to the ordinary preparations. Serious confusion has resulted from failure to appreciate that enteric-coated prednisolone tablets are only half the strength of the usual prednisolone. Suppositories of indomethacin are widely used, but even this route does not entirely avoid dyspepsia, and a local proctitis may follow long-continued use. Parenteral administration of corticosteroids or corticotrophin does not prevent gastric side effects, adding weight to the view that their action is not solely a local one. Tablets of all these drugs should, of course, be taken with food.

Alterations in bowel habit

We tend to forget that many commonly used drugs may affect the bowels. Magnesium trisilicate is a powerful laxative, while aluminium salts are constipating. Hypotensive drugs often constipate, though guanethidine and methyldopa may cause diarrhoea. Antibiotics of all sorts are apt to loosen the bowels, and serious forms of enterocolitis (pseudomembranous colitis) often with bacterial superinfection have followed the use of newer drugs such as clindamycin and lincomycin, though they were not unknown with previous broad-spectrum antibiotics. Less threatening forms of diarrhoea probably result from alteration of the bowel flora, and fungal infection may supervene. Purgative abuse, with characteristic appearances on barium enema examination and sometimes an Addisonian-like picture, should always be considered as a cause of unexplained diarrhoea.

Anti-inflammatory agents, especially the fenamic acid derivatives, appetite suppressants, and sex hormones may all cause diarrhoea, as may digitalis and diuretics. Digitalis can also produce a syndrome resembling mesenteric occlusion, with pain and bloody diarrhoea, especially in the elderly, while thiazide diuretics have been reported to induce an allergic vasculitis affecting the small bowel. Salts of iron, calcium, and potassium have an irritant effect on the bowel. Enteric-coated potassium chloride had a predilection for causing ulceration of the small bowel, usually manifest as obstruction, but occasionally as perforation or haemorrhage. This effect is said to have been abolished by the introduction of slow-release tablets, but these may still cause similar lesions—for example, in the oesophagus—as a result of hold-up.

Steatorrhoea has been observed after the use of drugs, some predictable, like neomycin, cholestyramine, and cytotoxic agents, others less so, such as phenindione, para-aminosalicylic acid, and mefenamic acid. Some drugs interfere with the absorption of essential factors such as vitamin B_{12} and folic acid.[3]

Constipation may be a problem with opiates, psychotropic drugs, anticholinergic agents, hypotensives, and iron. Ileus has been reported with some of these, especially antidepressants; and perforation is a particularly dangerous complication of corticosteroid treatment, since symptoms are often masked by the drug.

Envoi

A great deal of discomfort and much needless investigation might be avoided if we were always to consider the possibility of drugs being the cause of a patient's gastrointestinal symptoms.

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Letter from . . . Chicago

Trichology needs help

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That trichology has come of age as a highly organised medical-surgical specialty is attested by the lady who in a raffle at the school fair won a $50 certificate for "trichology, analysis, cutting, and blow dry." Ushered into an elegant salon with bright walls and loud music, she noted how the clients were mostly young, very thin and chic, and wearing $300 slacks and Christian Dior T-shirts; and how the trichologists, mostly men, were also slim and fashionable, with tightly fitting trousers, open neck shirts, and turquoise necklaces. An assistant met her, brought coffee, explained he would co-ordinate the various phases of the treatment (? primary-care trichologist), and then summoned the analyst, a formidable lady in a black coat followed by a docile looking assistant.

The analysis begins with the history: name, address, How often do you wash your hair? What shampoo do you use?—and the data are carefully entered in the personal record. Then without warning the assistant starts painlessly to break off strands of hair from different areas of the scalp. These she hands to the analyst who inserts them upright into the hair-analysis machine. Lights flash, the machine rumbles, the analyst studies some graphs and looks worried: "I am getting a very bad pH reading," she says. She tries another hair, looks at the graph again, "Oh dear, the reading is still pretty bad. What kind of shampoo are you using?" she asks—obviously it is not the right one. Then comes the elasticity test; and again the readings are bad. "What kind of water do you use; it must have plenty of

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impurities. Haven't you noticed how brittle your hair has become?" No, she hadn't. Nevertheless, it is clear that she will need six treatments, but "They are very strong; do you think you can take them?" "Well, we can give you three today and they cost $6 each" (covered by the certificate). The assistant rubs an ointment into the scalp, turns on the lamp, and the process is repeated three times. "Of course you must use our shampoo; and drink 20 glasses of water a day to clear your system of impurities; and you must wash your hair daily, dear, but only with tepid water and only for one-and-a-half minutes at a time." She then prescribes the shampoo, and rushes off in response to an emergency loudspeaker announcement that trichology needs help at station five.

Finally, we have the grand rounds. The director of the salon stalks in, scissors in hand, ready to operate, followed by 10 of his assistants. He begins to cut, a snip here, a snip there, the assistants watch intently, and their heads move in unison, first to one side, then to the other, so as not to miss any of the strokes of the master. The work completed, the director throws down the scissors and walks off without a word followed by his entourage, leaving the lady beautiful, impressed, but strongly reminded, as she puts it, of "the mumbo-jumbo you doctors go through with your patients."

Questionable operations

The lingering suspicion that many other operations are also about as beneficial as having a haircut has long been kept alive by some successful antidoctor books and by popular pamphlets such as "How to avoid unnecessary surgery." Yet reputable studies also suggest that some surgical procedures are based on rather questionable indications—including many hysterectomies, much of paediatric urologic surgery, and a whole host of other operations. Rates of surgery, it is noted, vary tremendously in different parts of the country; and they often correlate best with the number of available surgeons or hospital beds. Patients enrolled in prepaid plans tend to have less surgery than the rest of the population; Medicaid patients often have more—sometimes two-and-a-half times as much—and there are vast differences in the perceived need for various radical and often mutilating surgical procedures.

Some indirect evidence for excess surgery also emerges from the $1·5m study of the surgical services for the United States (SOSSUS)—which found that almost one-third of American doctors are performing surgery and that in 1974 some 18 million operations were done by roughly 100 000 doctors, of whom only about half were board-eligible or board-certified surgeons. While not addressing itself directly to the problem of unnecessary surgery, the study concluded that twice too many doctors were operating and that many surgeons were being underutilised, giving rise to the suspicion that an excess of surgeons might spell unnecessary surgery. And in another study, in New York, Dr McCarthy found that when members of a union had to obtain a second opinion before undergoing an elective operation, some 11-17% of procedures were "permanently deferred" because the consultant determined they were not necessary—the numbers being highest for hysterectomies (32%) and for dilatation and curettage (26%).

These figures, Dr McCarthy himself emphasised, apply only to a small sample of highly elective surgery in one locality and do not lend themselves to extrapolation. Yet largely on the basis of these figures, and after four days of deliberations, representative John Moss's congressional subcommittee charged that in 1974 doctors had done 2·4 million unnecessary operations, resulting in 11 900 needless deaths and costing $3·9 billion. As might be expected, the press had a field day, with headlines of "Needless surgery, many deaths": "Unfit doctors dangerous to your health"; or "Surgery that kills rather than cures"; with reports of 260 000 unnecessary hysterectomies and 500 000 tonsillectomies; and with horror stories of prosthetic aortic valves being inserted upside down, of local anaesthetic for tonsillectomy being injected into the carotid artery, and of a patient's only kidney being removed during cholecystectomy. Subsequently, the Blue Cross-Blue Shield insurance carriers also joined in the foray by announcing plans to develop programmes that would pay for second opinions before elective surgery.

The allegations, predictably, produced a violent reaction. The American Medical Association branded the report "a dishonest piece of political propaganda" and accused the Moss subcommittee of libelling the entire medical profession. Others called the report character assassination, and forecast that people will die from refusing life-saving operations. Prominent surgeons thought the figures were vastly exaggerated; and the AMA subsequently demanded that the congressional investigation be reopened because it contained "factual errors." Yet, in truth, the issue must clearly lie not in the occasional truly unnecessary (and therefore criminal) operation, but in the larger grey zone of elective surgery; and a real need exists for more precise indications for many procedures—for the 690 000 hysterectomies that are done yearly and for what is now threatening to become the commonest of all operations and a veritable industry, coronary heart surgery. Nor can one ignore the financial arrangements and the frequent accusations that fee-for-service surgery is one of the few examples wherein our society tolerates a conflict of interest, since the surgeon is paid if he operates and not paid if he does not. The remedy, according to Dr George Crile jr, is full-time employment for surgeons and the abolition of fee-for-service surgery, a change that he believes would improve the private system, make it more acceptable to politicians, and prevent the eventual nationalisation of medicine.

Abortion campaign

Abortion is another controversial issue that refuses to go away; and although three years have passed since the Supreme Court voided all criminal abortion statutes in the country and paved the way for an estimated one million abortions a year, the right-to-life groups have not given up hope. Within the last year they have continued a vigorous campaign, and there have been confrontations in the courts, anti-abortion riders attached to federal laws, and restrictive policies instituted by administrative agencies. Several states have tried to pass laws designed to circumvent the Supreme Court ruling; and in Illinois last year the courts overruled legislation requiring that parents or husbands give written consent before a woman could have an abortion. This year we have been witnessing a concerted effort to make a political issue out of what many consider to be a private, medical, and theological issue; and the anti-abortion forces are making an all-out effort to obtain a constitutional amendment against legal abortion. Recently the Roman Catholic bishops criticised presidential candidate Jimmy Carter for refusing to support such an amendment; and anti-abortion leaders, displeased with the Democratic Party platform, have vowed to work toward the defeat of Mr Carter and of other candidates opposed to banning legal abortion. The Republicans may stand to gain from this, for their Kansas City party platform supports a constitutional amendment, and Mr Ford's position is viewed by the bishops as "reassuring" though not entirely satisfactory.

And yet until recently abortion was not considered to be an issue capable of influencing the outcome of the elections; and earlier this year a public opinion poll in Illinois indicated that 47% of residents believed that abortion should be legal, with 16% having no opinion, and 37% being opposed. But now the anti-abortion groups appear to be gaining ground, and the supporters of legal abortion have been warned that unless they become politically active they may wake up one morning to find their congressmen opposing abortion. And several Chicago newspaper editorials regretted that in a pluralistic society one group should use the democratic process to impose a moral and theological position on the majority, and urged that candidates should be judged not on one issue but on the whole spectrum

of problems, including crime, unemployment, racial justice, and human rights.

Controversy about alcoholism

Perhaps only slightly less heated was the recent controversy over the treatment of alcoholism, a condition affecting between nine and 15 million Americans, ranking among the chief causes of death, and costing society billions of dollars. Complete abstinence has long been the accepted treatment and the mainstay of Alcoholics Anonymous programmes. But in June of this year a report from the Rand Corporation, while not advocating that treated alcoholics should attempt normal drinking, noted that a substantial number have stabilised at what could be regarded as normal drinking levels. The report, supported by a grant from the National Institutes on Alcohol Abuse and Alcoholism, and based on a study of outcomes for persons treated in NIAAA-supported comprehensive alcoholism centres, found that while 70% of patients were improved, only relatively few were long-term abstainers; and in fact at 18 months there were roughly equal numbers of abstainers, periodic drinkers, and normal drinkers.

The authors were not mistaken in predicting that their findings "may be controversial in some quarters"; and the report was variously called a cruel hoax, dangerous, irresponsible, a disservice to society, more mischievous than worthy, clinically unsubstantiated, and methodologically unsound, with predictions that thousands will drink themselves to death. Some thought the study ignored the problem of physiological addiction; and some advocated withholding funds from this kind of research. Others, however, felt that the press had mishandled the report, that the reaction was largely emotional, and that repressing scientific data would have been unacceptable. Meanwhile, another study, this time from the Addiction Research Foundation in Toronto, added more fuel to the fire by also suggesting that some alcoholics could be helped by programmes stressing moderate drinking as the ultimate goal; so the last word on this issue remains to be written.

In conclusion, I refer to one more operation, unnecessary though trichological. It was reported from northwest Indiana that at least seven women shaved off their hair after a telephone call from a prankster who claimed to be a doctor at the local hospital. He told each woman that her husband had been admitted with convulsions caused by infectious disease, and that she should immediately shave off her hair to prevent further spread of the contagion. The hair was to be put in plastic bags and left for "someone from the lab" to pick up. It appears that no one from the lab ever came, and that the ladies, being beyond the help of conventional trichology, will have to be referred to the section of artificial organs.

Occasional Review

Use of cardiac pacemakers in Britain

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Summary

In Britain during 1975 cardiac pacemakers were implanted at the rate of 56 new patients per million population. This is about one-third the rate for other Western countries but still represents an increase of 150% since 1972. Six-thousand generators were used, and apparatus worth about £2m was implanted. Over 90% of the initial implantations were by the transvenous route, and the mortality from this operation was only 0·3%. Electrode repositioning was needed in 10% of cases. The average age of patients at the time of first implantation was 70. Most patients with pacemakers were able to obtain driving licences and insurance; only 10% had to pay an additional premium. There is no evidence from insurance companies that such patients have an increased risk of accidents. Patients who wished to undertake paid employment almost always did so, often in their previous job. About 80% of the patients were able to increase or maintain their leisure activities at the same level of effort as before pacing became necessary. The number of implantations may be expected to increase by about three times over the next five years.

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Introduction

This paper compares the present and past statistics in Britain with regard to cardiac pacemaking and also reports on some social aspects. Data are included from surveys of major pacing centres and from all manufacturers (or their agents) who sold pacemakers in Britain in 1975; more-detailed results from the Guy's Hospital series (600 patients) are used to supplement this information whenever possible.

Generators used in Britain

From 1 January to 31 December 1975 some 6000 generators were implanted either as an initial procedure or as a replacement. This is a 20% increase over 1974, when 5000 generators were used, which in turn was a 43% increase over 1973, when 3500 were used. During 1975, 67% of the implanted generators were of the demand type; the corresponding figure for 1974 was 70%, and for 1973 65%. Long-life lithium-iodide-powered pacemakers were used occasionally in 1974 but accounted for slightly less than 5% of all generators sold during 1975.