Disability, Survival, and Coalworkers' Pneumoconiosis

Stn.—It is very pleasant to get from Dr. A. I. Cochrane another episode (2 June, p. 532) in the pneumoconiosis saga from the Rhondda Fach. Indeed, it sounds like one of the final chapters, which is a great pity when so much could be learnt by another clinical and radiological survey at this time. Dr. Cochrane states that simple pneumoconiosis is not associated with appreciable disability or loss of expectation of life. Indeed, no other overall conclusion seems possible from the figures. But in my view quite different conclusions may be drawn if the frequency of chronic bronchitis is studied in the groups of miners. There are good grounds for suspecting that this may be so. In people with chronic bronchitis, with excess mucus secretion and narrowed airways, the spirally directed dust particles reach the alveoli. As the development of simple pneumoconiosis is related to the amount of dust reaching that level, bronchitis probably gives some protection. There may therefore be a considerable excess of bronchitis in miners with category O and a decline in their number with higher categories of simple pneumoconiosis.

The possible effect can be illustrated by considering ventilatory capacity. Take groups of 100 miners with different categories of simple pneumoconiosis and a group of non-miners. Assume that chronic bronchitis occurs in 20% of the non-miners and, overall, in 30% of miners but that its distribution is uneven (see table). Award every man an expected ventilatory function score of 100 and assume that chronic bronchitis reduces this average by 10 in each category. The scores for the non-miners are then (80 x 100 + 10 x 20)/100 = 88.4, the totals for the high-risk and low-risk groups are similarly calculated. The figures give an indication of the over-all effect and show the fit pretty accurately to the theoretical distributions for the various groups, which is a preliminary test of the theory.

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Hazard of Laparoscopy

Stn.—We wish to report a case of severe retroperitoneal haematoma complicating laparoscopy.
A 29-year-old para 4 + 0 was admitted four months after delivery for laparoscopic sterilization, which was performed under general anaesthesia. The Verres needle was inserted just below the umbilicus at the second attempt and 3 l. of carbon dioxide introduced. The laparoscope itself was inserted at the same site and diathermy and division of the Fallopian tubes performed. When the laparoscope was about to be removed, a large retroperitoneal haematoma was noted over the bodies of the lower four lumen vertebrae and estimated to contain 1,500 ml of blood. An immediate operation showed a small puncture mark in the peritoneum of the posterior abdominal wall over the haematoma. But there was no further increase in the size of the haematoma and the abdomen was closed. The patient had a five-plate blood transfusion and made a good postoperative recovery.

We now consider that the safest site for introduction of the Verres needle is halfway between the symphysis pubis and the umbilicus, with the patient in the lithotomy position and with 30 degrees of head-down tilt. We also now introduce the laparoscope itself at the lower border of the umbilicus.

The annual reports of the Medical De- partment of the National Coal Board for 1971 (p. 121 and 122 (272)) refer to two deaths and nine serious complications following laparoscopy, including a diathermy burn of the small bowel causing peritonitis. Only one retroperitoneal haematoma complicating laparoscopy has been previously reported and this was associated with fatal air embolism. A review of 20,872 cases by Siegel et al included 19 deaths due to haemorrhage, peritonitis gas embolism, and aspiration of pneumoperitoneum in two cases of diagnostic laparoscopy reported by Duigan et al. and 910 cases of laparoscopic sterilization reported by Jordan et al. were attended by a total of 22 complications and no fatalities. We are, etc.,

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Hazards of Laparoscopy

Stn.—I would like to draw attention to a further hazard of laparoscopy. In the course of a recent laparoscopic tubal diathermy operation I had an unusual accident involving the Palmer's diathermy forceps. While taking a grip of the right Fallopian tube and isolating it from bowel I saw the terminal claw of the forceps detach from the rest of the instrument. After failing to remove the detached part with a second pair of forceps I was forced to proceed to a laparotomy in order to remove the detached part, to inspect the bowels and omentum for damage, and to complete the operation.

On subsequent examination the cause of the detachment was found to be a break of the soldered joint, which was easily repaired with silver solder. The instrument has since given no further trouble. I would thus suggest that a full check of all the joints of the laparoscope be made prior to operation as otherwise a laparotomy for "metal fatigue" may result.—I am, etc.,

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REFERENCES

perfusion, and consequent disability, without reducing the FEV. Therefore disability pro-
duced by simple pneumoconiosis may not only lead to death and distribute the chro-
monic bronchitis, but the tests that have been relied on to look for it are particularly in-
sensitive.

This argument may be rejected because there is little evidence that chronic bronchitis is less common in miners with higher categories of simple pneumoconiosis than in those without. Because, during life, chronic bronchitis has to be diagnosed on the basis of certain symptoms and because it has been convincingly shown that simple pne-
umoconiosis itself produces the same symp-
toms (even when smoking habits are taken into account) there are enormous difficulties in determining the distribution of chronic bronchitis in miners. The same investiga-
tion showed that the presence of simple pneumoconiosis was associated strongly with a higher prevalence of breathlessness. This again would be expected with small-airways alveolar disease and this seems a more logical explanation than an assumption that the men complained of breathlessness because many were heavy smokers and they had pneumoconiosis.

Satisfactory information about the distri-
bution of chronic bronchitis in miners can probably come only from careful postmortem bronchial histology. Some attempt at this was made by Lyons et al.19 but their series did not include enough subjects without pneumoconiosis to achieve valid conclusions. I have a very strong clinical impression that severe chronic bronchitis, characterized by the "blue blotter," is seldom if ever seen in a man with category 3.

Unequal distribution of chronic bronchitis may also conceal a reduction in life ex-
pectancy due to simple pneumoconiosis. In these younger men there should be less bronchitis and thus less "protection" from the development of pneumoconiosis. Mortality would then be a better reflection of the effect of simple pne-
umoconiosis. Between 45 and 65 years more men are considerably higher in men with category O than in those with simple pne-
umoconiosis and this may be due to an excess of bronchitis in the former group.

Cochrane's conclusions should be qualified by adding that the distri-
bution of chronic bronchitis in miners is probably uneven. Because of the marked
effect this has on conventional ventilatory tests and on mortality, uneven distribution may well mask substantial disability and mortality produced by higher categories of simple pneumoconiosis. As someone who tries to avoid being emotionally stirred by a minister, we are in a paradoxical position. We should find it possible, when looking at micro-copical and paper-mounted sections of lungs with exten-
sive simple pneumoconiosis, to believe that it had no significant effect on a man's capacity to breathe comfortably and live to an old age. There are, of course, other ways in which simple pneumoconiosis can produce disability44 which have not been touched on here or by Dr. Cochrane.—I am, etc.,

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Prodomal Symptoms of Biliary Colic or
Cholecystitis

Sin.—Prodomal symptoms are such as may occur in the time immediately preceding a more serious disease. On 3 and 4 April 1969 I suffered an acute attack of cholecystitis for which the gall-bladder was successfully re-

moved. During the six months pre-
ceeding this acute attack I had suffered some symptoms which puzzled me and my doctor and which I mentioned in a short article published in the B.M.J. (18 July 1970, p. 147).

These prodomal symptoms occurred at intervals of one to three weeks. The first attack was in about September 1968. I had got to sleep about ten o'clock and woke sud-
denly a few hours later; I had no pain but I was sweating profusely and my heart was beating about twice its normal rate. I sat up in bed wondering what had caused these symptoms and since they gradually sub-

proved I took little things into consideration. But soon they became frequent enough to cause me to have a towel by my bedside to dry myself if an attack occurred. My doctor examined me thoroughly but could find no cause for the symptoms, but on the night of 9-10 February 1969 I had a more severe attack and rang the bell to my sister's room (she is a qualified nurse) and since I was unable to get on the telephone to my own doctor I phoned my sister's doctor, who gave me good advice, told me to take my usual hypnotic, and the attack passed off. There was no pain at any time, but the awakening was so sudden that I must have been due to some unascertainable cause.

Then on 3 April I had the acute attack of cholecystitis which I described in my pub-
lished account. The gall-bladder was already re-
cove1 in some places and when it was re-
moved and opened was found to contain 15 pigmented gall-stones (black pigment). There was no stone which possibly could have been passed intact down the duct but all the stones were irregular in shape and rather flattened, and two of them had each of them at one end a smooth rounded quarter-inch that made it quite certain that they had attempted to enter the cystic duct. Neither of them could
have got far into the duct but I came to the conclusion that their attempted entry into the duct may have been the direct cause of the increasing and the increase in heart rate. At the same time I could not with assurance say that they had caused the symptoms and I have waited four years before I give it my opinion that my suggestion was correct, for I have not had any similar attack since the operation was performed.

It is well known that reflexes from the gall-bladder can cause symptoms which can call attention to the heart rather than the gall-bladder and copious sweating could easily be caused reflexly through the symp-
thetic nerves. The absence of pain can be explained by the fact that I sat up immediately when awakened and the stone would at once fall away from the neck of the gall-bladder. I have never seen any reference to similar prodomal attacks, nor have I heard any mention of them, so they are either very rare or have been overlooked. I am writing this note so that the readers of the B.M.J. may be on the look out for any such similar prodomal symptoms.—I am, etc.,

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The Problem Oriented Medical Record

Sin.—One of the major benefits of Professor Lawrence Weed's system of problem oriented medical records was described by him as "the scientific approach to medical record keeping. The new method for structuring the clinical data which ensues from it. As the structuring of data is one of the more difficult parts of the design of any system for making inter-patient comparisons, particularly if a computer is involved, it is not surprising to find that one has been used as a vehicle for Professor Weed's record. May I appeal to those interested in this system, however, not to associate too closely the ideas of problem oriented medical records and the use of a computer to collect and process these records. As you say in your leading article in the same issue (9 June, p. 570), a lot of research is still needed in the application of computing techniques in medici-
ne. Professor Weed's ideas can undoubtedly be applied with great benefit to existing medical data; and should a successful system "encil and paper" methods of recording of computer-based problem oriented records not be achieved as rapidly as we would wish, it is important that the potential bene-
fits of the problem oriented approach should not be discarded because of difficulties inherent in the application of today's technol-
ogy in medical environments.—I am, etc.,

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Hospital Medicine Sheets

Sin.—It is surprising that after 20 years of the National Health Service no standard form of hospital medicine prescription sheet has become generaly acceptable and appli-
cable.

At the present time different hospital groups, and their separate hospitals in some instances, have their own specially designed and printed sheets. This involves unnecessary