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**Editorial****The Significance of Professional Freedom\***

The concept of a "free profession" is one which is difficult to define as Hanauer pointed out in an address to the Fifth Congress of the Free Professions in the German Federal Republic this year, for the free professions are in a state of flux with poorly delimited boundaries and some overlapping. Yet most of us can enumerate these professions, such as medicine, the law, dentistry, veterinary science, and the arts which contribute so much to society in proportion to the numbers of those practising them. In the German Federal Republic members of the free professions number only about 250,000 or 0.5% of the population, and this is probably a good average figure for Western countries.

These are the people who keep the idea of the individual alive in the mass society of today although it seems that in such a society of organized mediocrity there is less and less room for them and at the same time a greater and greater need. The main problem of these people is to achieve a reasonable synthesis between the organized mass and their individual personalities. One of their tasks, says Hanauer, is to alleviate or even eliminate the anxiety afflicting members of the mass society; to do this they must be able to speak freely and to criticize when necessary.

One of the symptoms of the current anxiety is the universal preoccupation with health and sickness in the affluent parts of the world, and this anxiety can be relieved only by a personal approach. So marked is this state of hypochondria in some areas that one might agree that while the symbol of medieval Europe was the Gothic cathedral the symbol of Western society in the twentieth century is the hospital. And yet the patient does not want to go to see a hospital; he wants to see a doctor. In an authoritarian system without professional freedom, the doctor will come to be identified with authority and the immature patient will lapse into permanent dependency. He cannot regain his independence—one of the conditions for cure—unless his doctor also has some independence.

The doctor's freedom however must have limits, for absolute freedom is incompatible with the functioning of society. Hanauer analyses the apparent antithesis of "freedom and equality" and points out that the natural boundaries of individual freedom are the freedoms of others. In fact freedom is merely a function of equality. In the anonymity of the mass society there is a constant threat to freedom associated with the absence of individual responsibility and individual decision, and at the head of the upholders of this mass society are the

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scientists. Says Hanauer, "In modern life with its witches' brew of perfection everything has become meaningless. A deep but let us hope creative disturbance has overtaken the men of our time." The nineteenth century French historian De Tocqueville foresaw this when he wrote, "Men want to be free to make themselves equal. And as this equality is accomplished with the aid of liberty, so will liberty itself be endangered." What place remains in modern society for people who still want to make their own decisions and take the responsibility for their own lives. Is this idea incompatible with the modern hunger for security, more and more security at any price?

Hanauer bids his audience not to despair; it is possible for men from the free professions to integrate themselves into society and yet remain free. He cites the case of the ex-President of the German Federal Republic, Theodor Heuss, who worked with and in the community but preserved his individual outlook.

It is difficult for members of a free profession such as medicine to organize themselves and work together for the good of the profession, yet this is now essential if their voice is to be heard. When they do, of course, they are denounced as "pressure groups" but this does not matter. Writing of the American Medical Association's opposition to recent government legislation, the editor of the *New England Journal of Medicine* put the matter succinctly when he said that the profession's attempts to persuade the public and the legislators that their viewpoint was correct amounted to pressure but "unfortunately it must be exerted if the profession is to serve the public in what it sincerely believes is the most effective way, unhampered by accumulating political restrictions. As Hegel wrote, 'Amid the pressure of great events, a general principle gives no help.'" ■

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### A PHYSICIAN'S PRAYER

*From too much zeal for the new; and contempt for the old; from putting knowledge before wisdom; science before art; and cleverness before common sense.*

*Good Lord Deliver Us.*

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# Non-Antibiotic Properties of the Tetracyclines

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The tetracycline series of drugs came into wide use in the early fifties and were found to be most potent antibiotics with very few side effects. However, since that time several new properties have been reported, some useful and some not. The purpose of this article is to review some of these properties.

In an investigation of the distribution of tetracycline in the tissues, Andre<sup>1</sup> used a radioactive form of the drug to make autoradiographs of sections of mice that had been given tetracycline at varying times before sacrifice. Andre reported that the tetracycline was quickly concentrated in the skeletal tissue and remained there when it could no longer be demonstrated elsewhere. This was the first report of the affinity of tetracyclines for calcified tissue.

Later the fluorescent property of tetracycline was used to identify the presence of the drug in histologic and gross examination of tissue. This technique was perfected by Frost<sup>16</sup> and used by him in extensive studies of bone growth. The fluorescence provided an easy way to identify the tetracycline and removed the necessity of using the expensive and difficult to produce radioactive form of the drug.

The fluorescent property was adapted by McLeay<sup>20</sup> who observed the distribution of tetracyclines in tumor tissue. McLeay and Walske<sup>21</sup> developed this into a practical technique which could be used during surgery. Patients with suspected neoplastic growths were given pre-operative doses of tetracycline. At operation, after the tumor had been exposed, the normal room lighting was extinguished and ultra-violet illumination used. Tumor tissue, in which tetracycline had been concentrated, could then be clearly seen.

Vassar, Saunders, and Culling<sup>28</sup> reported that tetracycline induced fluorescence could be demonstrated in association with carcinoma of non-calcified tissue. This fluorescence was not seen in the actual malignant cells but in the macrophages and tissue debris in the tumor stroma. Berk and Kantor<sup>2</sup> developed this property into a test for gastric carcinoma by examination of gastric sediment. A test was also devised by Lipnik<sup>19</sup> to detect malignant cancers of the skin by local application of chlortetracycline followed by washing with trichloroacetic acid.

After these most useful and serendipitous discoveries of the properties of the tetracyclines had been reported, it seemed almost inevitable that there would be some reports of less desirable actions of the drugs. One of the early indications of this was the report by Bevelander, Goldberg and Nakahara<sup>4</sup> on the effect of tetracycline on the development of the skeleton of the larval sand dollar. They showed that the larvae responded adversely if tetracycline was added to the sea water in which they were growing. Bevelander, Nakahara, and Rolle<sup>5,6</sup> continued similar investigations of the effect of tetracycline on developing chick embryos. Low doses of the drug were rapidly concentrated

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in the skeleton while higher doses caused a pronounced reduction in overall growth.

Bevelander and Cohan<sup>3</sup> continued the study of the effect of tetracyclines on fetal development with their work on the rat. When the drug was given at the critical time (tenth to twelfth day of gestation) there was a significant reduction in fetal weight and size. No gross malformations were observed. Filipe and Mela<sup>15</sup> reported on similar work with mice. They found skeletal deformities were produced when tetracycline was administered from the fifth to the twentieth day of gestation.

Vasterling<sup>29</sup> reported on his *in vitro* studies of the effect of tetracycline on human sperm cell motility which was markedly reduced by the drug. In the same paper it was claimed that, three to four hours after injection of tetracycline in women, the drug could be demonstrated at the cervix uteri.

Cohan, Bevelander, and Tiamsic<sup>10</sup> reported their study of fibula growth rates in premature children who were given tetracycline for various periods during early life. Fibula growth rates fell by forty per cent when compared with untreated controls. A similar inhibition of fibula growth was also observed in a premature child born to a mother who had received one gram of tetracycline daily for two weeks prior to delivery.

Fields<sup>14</sup> reported that he had observed, in some cases of tetracycline therapy in young children, a bulging of the fontanelle. This he described as a pseudo-hydrocephalus. No explanation was suggested.

Wilson<sup>34</sup> reported the case of a pregnant woman who had been given tetracycline for a fever, ascribed to acute bronchitis, at about six weeks gestation. When the child was born there were defects in both hands severe enough to worry both parents and physician. Carter and Wilson<sup>9</sup> in a later review of this case, indited tetracycline as the probable cause.

It seems fairly certain that tetracycline, apart from its antibiotic action and short term side effects, can cause inhibition of the growth of some tissues and may even cause skeletal deformities.

### Effect of Tetracyclines on the Teeth

Shwachman, Fekete, Kulezcki, and Foley<sup>27</sup> first reported observing an unusual staining of the teeth in 1959. In their series fifty patients were treated with various broad spectrum antibiotics, including the tetracyclines, as a prophylactic measure against the pulmonary effects of cystic fibrosis of the pancreas. The daily dosage given was between ten and twenty-five milligrams per kilogram body weight for a minimum of eight years. They reported dark staining of the teeth in eighty per cent of their cases.

In 1960 and 1961, Zegarelli, Denning, Kutscher, Tuoti, and di Sant Agnese<sup>37,38</sup> published two reports of their study of a group of children with cystic fibrosis. They examined fifty-two children, attending a Cystic Fibrosis Clinic, for possible discoloration. They found no discoloration in fourteen patients, discoloration of the primary dentition in twenty patients, discoloration of the mixed dentition in eleven patients and the permanent dentition of seven patients. This is an overall incidence of 73 per cent.

In August 1962, Zegarelli, et al<sup>39</sup> reported on the coloration of teeth in forty-one cystic fibrosis patients and twenty-four other children. The other children were all being treated for miscellaneous unspecified diseases. Each child was examined in daylight after a rubber cup prophylaxis. The color of

each tooth was determined by comparison with an S. S. White Texton and Filling Porcelain Color Matching Guide. They observed that of 813 teeth in the cystic fibrosis patients, 185 (23 per cent) fell into the very dark shade group. Only 36 of the 494 teeth of the control group (7 per cent), including 20 teeth from one anorexia nervosa patient, were in the darker group.

Brottman and Kutscher<sup>7</sup> described the case of a child who had been diagnosed as having osteomyelitis of the maxilla at three weeks of age. He had been given several antibiotics including tetracycline. Tetracycline, alone or in combination, was given for nine weeks. On eruption, the primary dentition was discolored and this did not change in intensity up to examination at six years of age. At this time the teeth were discolored and showed hypoplasia in varying degrees. Radiographic examination showed no abnormality but histologic examination of a shed tooth showed yellow fluorescence under ultra-violet light. Clinical examination of the teeth with ultra-violet illumination showed bright yellow fluorescence.

Kutscher, Zegarelli, Tovell, and Hochberg<sup>18</sup> reported, in May 1963, on a case of an infant with discolored primary teeth whose mother had received tetracycline during pregnancy. The baby was not premature, nor did he exhibit any systemic disease which might have caused the generalized discoloration. The child did not receive tetracycline after birth either prophylactically or therapeutically, nor was he breast fed. At three years, ten months the child was examined after his history had caused the authors to suspect that his teeth might be discolored. Oral soft tissues were normal, all the primary teeth were erupted and in normal position, and several small occlusal amalgam restorations were present in the molar teeth. All the teeth were discolored and fluoresced with the characteristic yellow color of tetracycline.

In June 1963, Zegarelli, Denning, Kutscher, Fahn and Slaughter<sup>36</sup> described a microscopic study, by visible and ultra-violet light, of ground sections of the teeth from thirty-two cystic fibrosis patients. Zonal patterns were seen in the dentin which were removed by decalcification.

In September 1963, Zegarelli, Kutscher, and Fahn<sup>40</sup>, published case histories of four patients who were not victims of cystic fibrosis. The patients had all received standard pediatric dosage of tetracycline for from ten to sixty-three days and all showed abnormal pigmentation of the teeth.

The clinical studies of Zegarelli and his group may be summarized as follows: A high proportion of cystic fibrosis patients who were treated with tetracycline for extended periods showed discoloration of the teeth. Later they reported that patients suffering from a wide variety of diseases showed tooth discoloration after treatment with tetracyclines. The teeth were also shown to fluoresce with ultra-violet light illumination.

Case histories of patients who had been given tetracyclines and later showed pigmentation of the teeth were reported by Grøn and Johannessen<sup>17</sup>, Davies, Little and Aherne<sup>11</sup>, Pindborg<sup>23</sup>, and Mitchell<sup>22</sup>. de Veber<sup>12</sup> reported an atypical case of pigmentation which occurred very soon after tetracycline therapy and was only transitory. Rendle-Short<sup>26</sup> reported a case of transplacentally acquired tetracycline staining.

Walman and Hilton<sup>31</sup> reported instances of teeth pigmented by much smaller amounts of tetracyclines than the previous studies. Fifty children who had been given tetracycline, usually during the first week of life, were examined and forty-six had pigmented teeth. Only eight of the fifty had been diagnosed as having neonatal jaundice. The younger children showed yellow

pigmentation but in the older ones it was brownish. Some hypoplasia of the enamel was seen. The authors claimed to show a relationship between the amount of drug per kilogram body weight and the severity of the pigmentation. Only one of the eight children who had been given oxytetracycline showed pigmentation of the teeth and the authors assumed that this drug probably does not produce pigmentation. Extracted teeth were examined in several ways to prove that the pigment was in fact tetracycline. Sections were examined by ultra-violet illumination and the characteristic yellow fluorescence was seen. The action of light on an extracted tooth was compared with a part of the tooth which was kept in the dark. The exposed tooth became browner in color. Ultra-violet absorption spectra of extracts from pigmented and normal teeth were obtained. The extracts from pigmented teeth showed an absorption peak at 2700 Angstrom Units which is characteristic of tetracycline. Wallman and Hilton also described one other case which was not included in their main series. This patient showed severe changes after only two days treatment at two months of age. However, this was associated with an excessive dosage (five times the recommended amount) and from this information the authors deduced that the total dose of tetracycline was more important than the duration of treatment.

In October 1962, Wallman and Hilton<sup>30</sup> reported a more detailed investigation of their original series of patients. This was to answer suggestions that prematurity alone or the disease for which tetracycline was given, caused the enamel hypoplasia reported. Forty-six premature children were examined. Thirty-two children had normal teeth and six of these had had illnesses but none had been given tetracyclines. Fourteen children had abnormal teeth, one had kernicterus and had been given oxytetracycline. The other thirteen had all been given tetracycline and all had pigmentation. Nine also had enamel hypoplasia. Twenty-one children who had been given oxytetracycline were also examined. Only two children had abnormal teeth, one was mentally defective and had yellow non-fluorescent teeth without hypoplasia. The other child had kernicterus due to rhesus incompatibility.

Wallman and Hilton concluded that tetracycline, rather than the illness for which it was given, was responsible for the enamel hypoplasia. In the group given oxytetracycline, the average dose had been higher than in the group given tetracycline. There were only two children with dental defects out of twenty-one given oxytetracycline compared with forty-six children with dental defects out of fifty given tetracycline. The authors considered this strong evidence that oxytetracycline was less likely to cause dental defects than tetracycline.

Porteous and Weyman<sup>25</sup> reported finding a definite correlation between the time of administration of tetracycline drugs and the formative period of discolored teeth. Two cases were discussed. One was a girl who had osteitis of the maxilla and was given tetracycline from twelve days of age to six months. The primary teeth were pigmented but not the permanent teeth. The other was a girl with fibro-cystic disease of the pancreas given tetracyclines from eleven months to eight years. In this case the permanent teeth were pigmented but the primary were not.

Weyman and Porteous<sup>32</sup> made a report on nine cases of intrinsic discoloration of teeth. All had been given tetracycline and the time of administration was correlated with the development time of the teeth affected. It was found that the dental ages of the children were within the range of normal

and the affected teeth were those which would have been expected to be developing at the time of drug administration. The common factor in all these cases with tooth discoloration was the administration of tetracycline but not the disease for which it was given.

Porteous and Weyman<sup>24</sup> reported on post mortem material from a subject who had been given six courses of tetracycline between four months of age and death at three years and two months. Ground sections showed no clear pattern of fluorescence in the bone and an ordered pattern of fluorescence in the dentin. Only a little evidence of tetracycline in enamel at the cervical margins was seen. Distribution in cementum was similar to that in bone. The administration dates of the drug corresponded with the pattern of fluorescence in the dentin. The authors considered that the post mortem material supported the clinical observation that tetracycline stains tooth and bone substance.

Weyman and Porteous<sup>23</sup>, described their clinical study of thirty-seven cases of tetracycline discoloration. There were two types of discoloration. One was gray-brown and did not fluoresce in ultra-violet light, the other was a strong yellow and fluoresced bright gold. They claimed that the teeth had not changed color after eruption but that each type had been in one group or the other since eruption. Examination of clinical records showed that the gray-brown group all had been given chlortetracycline and those with yellow discoloration had been given tetracycline or oxytetracycline. Caries incidence was normal and although hypoplasia of the enamel was seen in some cases it was thought not to be caused by the drugs. Ground sections of a number of teeth from these patients were examined and found to show the typical yellow bands in the dentin indicating tetracycline. Decalcification removed the fluorescence of the bands. The enamel showed bands of fluorescence, usually faint, which were thought due to autofluorescence for the most part. There was evidence of some disturbance of enamel development.

The work of Porteous and Weyman may be summarized as follows: There was a correlation between time of administration of tetracyclines and the area of the teeth stained. The staining was not caused by any specific disease but by tetracycline. Chlortetracycline caused a gray-brown stain and the other tetracyclines a yellow stain. The staining did not darken with time. Tetracycline was not seen in the enamel and the authors thought the hypoplasia they saw was not caused by the drug.

Douglas<sup>13</sup> reported in January 1963, on sixty patients being given long term treatment with tetracyclines and examined under ultra-violet illumination. All showed fluorescence of the proximal part of the nails. It was found that this fluorescence could develop within twenty-one days of the start of tetracycline therapy. Six of these sixty became pregnant during the period of tetracycline administration and gave birth to eight children. All the children showed brilliant fluorescence of the primary teeth. None were breast fed or given tetracyclines. Seven of the eight showed brown pigmentation and the eighth a faint yellow tinge. It was assumed that the drug had been absorbed from the placenta.

In September 1963, Bullen<sup>8</sup> reported on his examination of 1,281 school children, aged six and seven, in British Columbia. In this group six children showed lemon yellow teeth, two in the primary teeth only, four in the permanent teeth only. In five of the cases tetracycline had been given for the treatment of various infections, in the other case it was given prophylactically.



Witkop and Wolf<sup>35</sup>, in October 1963, reported on the relative frequency of cases of hypoplasia and yellow teeth seen in the clinic of the Human Genetics Branch of the National Institute of Dental Research. In a typical six month period the clinic saw six cases of stained or hypoplastic teeth. One case was of amelogenesis imperfecta, which occurs about once in fourteen or sixteen thousand births. Two cases were dentinogenesis imperfecta which occurs about one in eight thousand births. Four cases were erythroblastosis fetalis, which occurs about once in two hundred births but only one in ten of these show enamel hypoplasia. In a recent six month period, seventeen cases of stained and hypoplastic enamel were seen in the clinic and thought to be caused by tetracycline administration. In each case tetracycline had been given either to the child or, as in one case, to the nursing mother. In five cases reliable information of the exact dosage was obtained. Daily dosage ranged from 20-75 mg/Kg body weight and higher dosage was related to more severe enamel hypoplasia. Examination of the hypoplastic areas under ultra-violet illumination showed a bright yellow fluorescence which was most intense at the junction of normal and hypoplastic areas. Twenty-five patients with normal and a wide variety of abnormal teeth were also examined under ultra-violet light, none showed a yellow fluorescence.

To sum up the information in these reports, some of which are conflicting, several strong probabilities emerge:

1. Tetracyclines can cause teeth to be permanently stained.
2. Tetracyclines can cause hypoplastic areas on the teeth.
3. The part of the tooth affected is the part developing at the time the drug is administered.
4. Tetracycline given to the mother in the last trimester of pregnancy can affect the teeth of the child.

It is not yet clearly understood why some children are not affected by the drug nor what the minimal dosage to affect the teeth might be, but practitioners using the drug should be aware of its possible effects and exercise discretion in its use.

### Summary

Reports of the non-antibiotic effects of drugs of the tetracycline series are reviewed. The evidence presented leads to the following conclusions.

1. Tetracyclines can inhibit bone growth.
2. Tetracyclines may produce fetal deformity.
3. Tetracyclines can stain teeth permanently.
4. Tetracyclines can cause hypoplasia of enamel.

An appeal for discretion in the use of drugs of the tetracycline family is made. ■

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# Librium and Toxaemia

by

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The treatment of toxaemia of pregnancy has been directed along two main fronts: (1) Early diagnosis and prevention (diet, rest, weight control) and (2) Specific therapeutic measures.

The great reduction in the incidence of severe preeclampsia and eclampsia is due, to a large extent, to the earlier diagnosis and preventive measures in widespread use today. The success of specific therapeutic measures has not been so great. Certainly, sedation still lists high on any therapeutic armamentarium and at the moment is the foundation of most therapeutic regimes. The literature abounds with descriptions of new drugs for the treatment of toxaemia, pointing out indirectly the inadequacies of each.

The recent application of percutaneous renal biopsies by such investigators as Altechek<sup>1</sup>, demonstrates the inadequacies of present day symptomatic treatment. He points out that the underlying pathological changes in the kidneys are unaltered despite apparent improvement of symptomatology. Such studies have provided impetus for further research into the basic pathophysiology of toxaemia.

At present the uterine ischaemia theory of toxaemia, supported by Dexter and Weis, Page and Dieckman<sup>2</sup>, is still the most widely accepted. If this theory is correct, then means of reducing intra-uterine tension and resultant uterine ischaemia should result in improvement in the course of toxaemia, both symptomatically and histologically.

It was on this premise that Berger and Neuweiler<sup>3</sup> started a series of investigations to evaluate the various drugs available which might reduce uterine tension. These men carried out 674 single tests with 94 different substances, on strips of human myometrium obtained at the time of Caesarean Section or Hysterectomy. They were able to produce significant uterine relaxation with only two substances: (1) Meprobamate and (2) Librium, the latter being far more effective.

Librium was then assessed clinically by Berger and Beutler<sup>4</sup>. Although their series consisted of only six cases, their results were most encouraging and warranted further clinical trials.

The present paper is one such clinical trial.

## Method

1. The twenty-three patients who make up this study were patients attending the Dalhousie Pre-Natal Clinic, which is operated by the Department of Obstetrics and Gynaecology of Dalhousie University Medical School, Halifax, Nova Scotia.

2. All patients were diagnosed as mild pre-eclampsia as classified in 1962 by the American Committee of Maternal Welfare.

3. All patients had been treated on an out-patient basis with the therapy of choice of the attending physician and had not responded satisfactorily.

4. No patients classified as severe pre-eclampsia were started on the study. Any patient on the study who progressed to severe pre-eclampsia, was taken off the regime as outlined below and placed on further treatment.

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5. Twenty-three such patients were admitted to the ward service of the Grace Maternity Hospital for investigation and treatment with Librium.

6. On admission, all patients were placed on bed rest and a low salt diet. Blood pressures were recorded four times daily. The following were recorded daily: (a) urinalyses for albumen, (b) symptoms such as headache, visual disturbances, epigastric distress, (c) presence of edema and (d) weight.

7. No therapy was initiated until twenty-four hours following admission. This was to assess the value of bed rest alone in the treatment of mild pre-eclampsia.

8. Following the twenty-four hours of bed rest, the patient was started on Librium\*, 50 mg. q.8.h. (I.M.) Because a few patients could not tolerate the intramuscular injections, they were given the drug orally in the same dosage.

9. If the patient showed no or only fair response to Librium, a diuretic was added to the regime.

10. Improvement was defined as: (1) fall in blood pressure (2) disappearance of albuminuria and edema (3) loss of weight.

## Results

TABLE I  
Patients Included in Study

**Patient	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Age	35	24	22	33	17	46	43	15	21	17	21	17	21	15	17	15	34	14	22	16	18	15	18
Para	0	3	0	4	0	11	5	1	0	0	0	0	0	0	0	0	3	0	1	0	2	0	0
Gravida	1	4	2	5	16	6	2	1	1	1	1	1	1	1	1	1	4	1	3	1	3	1	1

\*(The patient number is taken at random and does not represent successive patients in the study)

TABLE II  
Effect of 24 Hours of Bed Rest Alone

Patient	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Improved	X							X	X	X		X	X			X	X	X	X		X	X	X
No change		X	X	X	X	X	X							X	X						X		
Deteriorated											X												

TABLE III  
Effect of Librium 50 mg. q.8.h.

Patient	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Improved			X						X									X		X	X	X	X
No Change	X			X	X	X	X	X		X	X	X	X	X	X	X	X		X				
Deteriorated		X																					

\*Librium provided by Hoffman-LaRocha Inc.-Montreal

TABLE IV

## Additional Therapy Necessary

Patient	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Yes	X	X	X		X	X	X	X			X	X					X					X	X
No				X					X	X			X	X	X	X		X	X	X	X		

Table II illustrates the value of bed rest in the treatment of mild pre-eclampsia. 13 of the 23 cases showed some improvement on bed rest and diet alone. Additional improvement was evidenced in only seven patients of the twenty-three when Librium was added to the therapeutic regime (Table III). Of these seven cases, three showed further improvement with the addition of a diuretic to the regime.

The course of toxæmia was adequately controlled in six of the twenty-two cases during labour and delivery. (one was delivered by elective Casarean Section before the onset of labour, because of pelvic contraction).

## Conclusions and Discussion

(1) Bed rest and diet still have a prominent place in the treatment of toxæmia of pregnancy.

(2) The results of this study do not support those of Berger and Beutler.<sup>4</sup> The average dosage of Librium used in the present study was equal to and sometimes higher than that used by Berger and Beutler. Also, Berger and Beutler combined their treatment of Librium with a diuretic. In this study, the value of Librium alone was assessed before the addition of a diuretic. It is possible that the excellent results of Berger and Beutler might be due to the diuretic alone, or more likely, to the combination of Librium and the diuretic.

(3) It is the experience of this clinical trial that, Librium in the dosage used, by itself, is **not** an effective drug in the treatment of toxæmia of pregnancy.

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## CASE REPORT:

# Stokes Adams Disease - Report of a Case Treated Surgically\*

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Stokes-Adams disease is characterized by brief periods of unconsciousness of sudden onset resulting from sudden, severe reduction of cardiac output. The disturbance of cardiovascular function which initiates this is variable, but it is most commonly associated with short periods of ventricular asystole in patients with partial or complete heart block. Although there has been improvement in drug therapy in the past decade, many patients with Stokes-Adams disease are poorly controlled with drugs alone. In the past few years, various types of artificial pacemakers have been introduced in an attempt to maintain relatively stable cardiac function. The following case report illustrates the management now available for this disease.

**Case Report:** A 50 year old man was admitted to the Victoria General Hospital on 8 February '64 because of the development of frequent episodes of syncope.

Two years previously, weakness and dizziness had been noted with exertion and at that time a diagnosis of partial heart block with variable A-V conduction was made. He responded to conservative therapy and was able to work regularly until December, 1963, when the exertional symptoms of weakness and dizziness recurred. An episode of syncope on 31 January '64 precipitated admission to his local hospital, where a diagnosis of complete heart block was made. Several days following admission to hospital, the ventricular rate dropped to 10 beats per minute and numerous episodes of syncope developed. At one stage, continuous infusion of adrenalin intravenously was necessary to maintain consciousness. However, by the time he was transferred to the Victoria General Hospital, the attacks were relatively well controlled with Isuprel sublingually.

Examination on admission showed an alert 50 year old male with a pulse rate of 24 per minute. The extremities were cool but there was no peripheral cyanosis, and the blood pressure was 140/60. An occasional "cannon" wave could be seen in the jugular venous pulse, the first heart sound varied in intensity, and atrial sounds were audible along the lower left sternal edge.

The electrocardiogram confirmed the presence of complete heart block.

On 9 February, he was taken to the operating room where a left thoracotomy was performed under general anesthesia. The internal coil of a coupled inductive pacemaker was buried in a subcutaneous pocket, the wires from this

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coil were inserted into the ventricular myocardium, and the chest was closed. The external coil was strapped to the chest wall directly over the inner coil, and the wires from it were connected to a small permanent cardiac pacemaker with a ventricular rate set at 64 beats per minute.

The rate was maintained at the desired level during the hospital stay without difficulty and this resulted in an almost immediate improvement in symptoms with disappearance of the weakness and dizziness and considerable improvement in his sense of well being. The pacemaker was functioning well and the patient was asymptomatic at the time of the follow-up five months later.

**Summary:** A case of a 50 year old male with Stokes-Adams disease who was treated by implantation of an artificial pacemaker is described. This is the treatment of choice for the disease at the present time, when the symptoms cannot be adequately controlled with drug therapy.

**Acknowledgement:**

The authors wish to thank Dr.'s J. B. MacDonald and J. F. Hamm who managed this patient during the most acute stage of his illness and who referred him to the Victoria General Hospital.

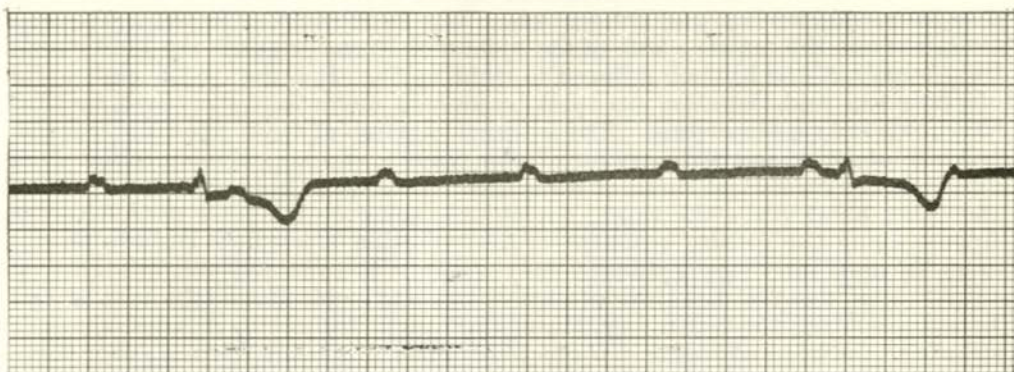


FIG. 1.

EKG (Lead 2) taken immediately pre-operatively. Note that P waves continue without any fixed relation to QRS complex.

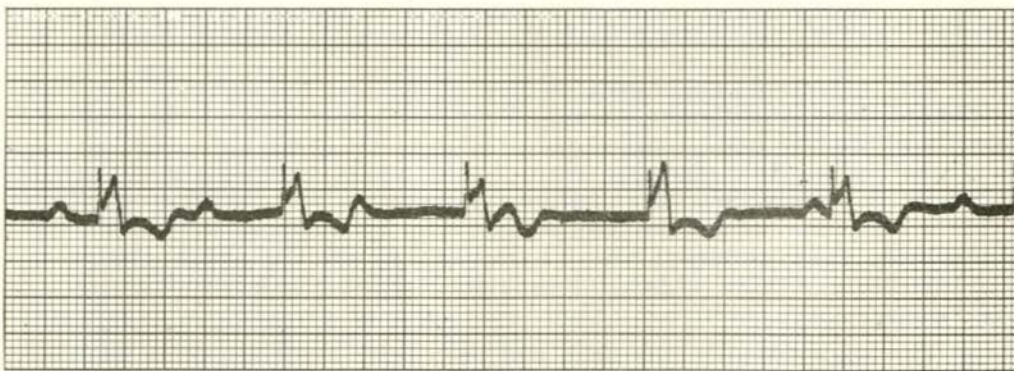


FIG. 2.

EKG (Lead 2) taken immediately postoperatively. The spike potential just preceding the QRS complex is the signal from the pacemaker.

# Congenital Orthopaedic Anomalies

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The congenital anomalies of bones and joints seem to be on the rise, partly because of inadvertent use of the new medicines. The numerous tragedies caused by the use of thalidomide during pregnancy are still fresh in memories. The purpose of this article is, on the one hand, to refresh the memory of the family physician regarding the clinical features of some of these anomalies, for it is an established fact that the majority can be treated conservatively if recognized as early as possible and further normal development can be secured. On the other hand some known deleterious factors will be listed in an effort to prevent their occurrence.

## Anomalies of the Hip

### 1. DYSPLASIA OF THE HIP:

Clinically there are three stages of failure of development of the hip joint: dysplasia, subluxation and dislocation. The females are affected six times as frequently as the males. One of the most well known signs is the limitation of full abduction, the hip being flexed to right angle. It is due to the contracture of adductors and therefore may not be present at birth. The thigh and buttock folds are asymmetrical. The internal rotation of the hip joint is increased because of increased anteversion of the femoral neck. The so-called Ortolani's sign is present at birth at all stages: One hand holds the pelvis firmly, the other hand grabs the thigh, the thumb being on its inner aspect and the fingers along the greater trochanter; first traction is applied, the hip at right angle flexion, then very gradually and gently it is abducted and internally rotated. One can feel the 'jerk of entry' and when left alone 'the jerk of exit'. In manipulating the hip the gentleness is a must for not to damage the blood supply to the head of femur. If one hip is dislocated only the knee at involved side lies below the level of normal one, if the baby is laid down hips at right angle flexion and the knees held together. This is not true if both hips are dislocated. If the child is already walking the Trendelenburg gait is evident which is caused by the weakness of abductor muscles of the hip on involved side to stabilize the pelvis at the stance phase of the gait, so that the body swings to the involved side to compensate it. It is more obvious in bilateral involvements.

The radiographs are of great value in diagnosing the anomaly as well as in differentiating its different stages. Very late appearance of the ossification center of femoral head, marked anteversion of the neck, if dislocation occurs even before the child starts to creep, if there are osteochondritic changes present in the femoral head even before the reduction and the presence of other severe congenital anomalies are unfavorable factors from the standpoint of prognosis. The treatment with a hyperabduction device should start as soon as possible, otherwise surgical intervention may become a necessity.

### 2. COXA VARA:

The angle between the neck and the shaft of the femur is diminished, caused by the delayed ossification of the femoral neck. The limb is shorter on the involved side and the abductor weakness of the hip causes the Trendel-



enburg gait. It may be bilateral. Correction of varus by an osteotomy is required to prevent future disability.

### **Anomalies of the Knee**

#### **1. DISLOCATION OF THE KNEE:**

The tibia is anterior in relation to the femur causing 20° or more hyperextension at the knee. There are transverse skin folds across the front of the joint. The patella is hypoplastic and displaced upwards. In long standing cases hyperextension deformity may be lost because of bayonet apposition. The results are better with early conservative management.

#### **2. DISLOCATION OF THE PATELLA:**

The intercondylar groove fails to form properly with underdevelopment of the lateral condyle of the femur. Genu valgum and high placed patella facilitate it. It may be dislocated at birth and remain such unless surgically corrected, or recurrent dislocation may occur which leads to chondromalacia of patella if not prevented early with a reconstructive procedure.

### **Anomalies of the Foot**

#### **1. CLUB FOOT (Talipes equino-varus):**

The foot is plantar flexed at the ankle (equinus), inverted at the subtalar joint (varus) and adducted at the tarsal joints (fore foot adduction or metatarsus varus). Foot is smaller, heel is poorly formed and stands abnormally high. External malleolus is prominent, internal malleolus lies deep beneath the redundant tissue. The circumference of the calf measures less on the involved side. If extreme, patient walks on the outer border of the foot (reel foot) with a steppage gait. Treatment with corrective casts should start as soon as the diagnosis is made.

#### **2. FOREFOOT ADDUCTION (Metatarsus Varus):**

If only the first metatarsal is involved it is called metatarsus primus varus which may lead to hallux valgus deformity if not corrected. The deflection of the foot inward takes place at the tarsal joints. Hind foot is normal. Early correction with plaster casts is required.

#### **3. FLAT FEET:**

This is the most common orthopaedic problem in childhood. On weight bearing the heel tends to incline into valgus and some pronation takes place at midtarsal joints. Foot strain may cause an intermittent limp. The heel cord is usually somewhat tight. Internal torsion of the tibia may accompany it. Knock knees (genu valgum) frequently develop for the legs are widely separated on weight bearing and some relaxation of the ligaments is present. Toeing-in is frequently a protective gait to guard against the foot strain. One should not prescribe outer heel or sole wedge which would put more strain on the long arches. 1/8" medial heel wedge with 3/8" arch cookie is usually effective. Straight last boots are ordered if there is a tendency of fore foot adduction. Exercises are instructed to stretch the tight heel cords, to strengthen both tibials and the muscles of the sole of the foot.

The so called 'vertical talus' causes a fixed flat foot deformity and requires surgical care. 'Peroneal spastic flat foot' may be caused by rheumatoid, tuberculous or traumatic arthritis involving the midtarsal joints, but the most frequent cause is a coalition of tarsal bones.

#### 4. OVERLAPPING TOES:

The normal growth can be secured by proper taping.

### **Anomalies of the Shoulder**

#### 1. CONGENITAL ELEVATION OF SCAPULA (Sprengle's Deformity):

The involved scapula is smaller, placed higher and its supraspinous portion is hooked forward. Often there is a fibrous band or even a piece of bone (omovertebral bone) connecting it to the cervical spine. Surgical treatment is required.

#### 2. HUMERUS VARUS:

The shaft-neck angle is less than  $140^\circ$  causing limitation of full abduction at the shoulder. Surgical treatment is required.

### **Anomalies of the Hand**

#### 1. CLUB HAND:

The cause is the defective development of the radius (radial club hand) or the ulna (ulnar club hand). In radial club hand quite often first metacarpal and thumb are absent or rudimentary. Early conservative, if not, surgical treatment is required.

#### 2. TRIGGER THUMB:

It is caused by congenital stenosing tenovaginitis of the flexor pollicis longus tendon sheath at M.P. joint level. The thumb may lock in flexion, then passive extension causes pain. Incision of the thickened tendon sheath cures it.

#### 3. SYNDACTYLISM, SYMPHALANGISM:

Soft tissue webs bind two fingers or toes together. Even bony bridges may be present in between the phalanges. Surgical treatment, especially of fingers, is indicated.

### **Anomalies of the Spine**

#### 1. SCOLIOSIS (Congenital):

It is caused by the failure of development of vertebra on one side (Hemi-vertebra). Sometimes several of them may balance each other causing only slight deformity. If only one vertebra is involved the deformity usually does not become severe, but the involvement of several vertebrae on the same side causes very severe deformity as the child grows, requiring surgical intervention.

#### 2. KLIPPEL-FEIL SYNDROME:

It is caused by congenital fusion of vertebrae at cervical spine. The neck is short and the movements of it are limited some.

#### 3. MUSCULAR TORTICOLLIS:

The Sternocleidomastoid muscle is replaced to a great extent by fibrous tissue. A 'tumor' develops at about two weeks after birth and subsides after six weeks. The occiput is held toward the involved side, the chin being rotated to the opposite side. The eye brow slopes downward on affected side, the face becomes shorter and flat (facial scoliosis). At early stages stretching exercises may overcome it, if not, surgical intervention is required, which should not be delayed for long, otherwise facial asymmetry may persist in spite of it.

### Anomalies of Long Bones

Partial or complete absence of development, defective development, pseudarthrosis (like in tibia) or excessive torsion may be the source of deformity at different parts of the body.

#### The Prevention

The teratogenic factors are of two main sources: Genetic and Environmental. The following environmental deleterious factors are known and the pregnant mother should have the proper protection.

1. Faulty diet, like riboflavin deficiency
2. Intercurrent infections, like german measles, measles, chicken pox, mumps.
3. Drugs taken during pregnancy: It is a safe rule that the pregnant mother should never receive any new medicine.
4. Irradiation during pregnancy
5. Isoimmunization, like Rh factor
6. Toxemias of pregnancy
7. Metabolic disorders, like diabetes which needs to be well controlled.

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#### FROM THE BULLETIN OF 40 YEARS AGO

From The Medical Society of Nova Scotia Bulletin, September 1924

#### COUNTRY PEOPLE BLAMED FOR COUNTRY DOCTOR SHORTAGE

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If the country doctor is disappearing it is the fault of no one except the country people. This is the view of Dr. C. C. Cracraft in a recent number of the Atlantic Medical Journal.

Six reasons why the family doctor will not stay in the country are enumerated by Dr. Cracraft; they are: inadequate fees, bad roads, hard work, lack of hospital accommodations, insufficient opportunities, and above all lack of loyalty on the part of his patients.

The proposal that the rural and small town community provide the doctor with a house, as an inducement to entice or keep him in the country, was condemned by the writer. The persons that gave the doctor the house would think they owned him, Dr. Cracraft declares, and would make life miserable for him.

"Country districts have the remedy in their own hands," the article states. "When they pay the doctor adequately, and promptly, build good roads, provide sufficient hospital accommodations, make the high school what it should be, and, above all, are loyal to the home doctor; then, and then only, will the rural districts be able to obtain competent medical men. Let them do these things and the old-time country doctor will again appear, and there will be no more complaint of a dearth of rural physicians."

# Experimentation: Medical Practice or Malpractice?

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World Medical Journal - Vol. 9. May 1962 - No. 3

The dynamic growth and current vitality of experimental inquiry, field trials and laboratory-clinical studies have served as prisms to focus and reflect professional and public attention on all facets of medical activity. Medical research, pursued mainly by universities, hospitals, medical centers, public and voluntary agencies and pharmaceutical firms, has aroused special interest in the correlative rights and responsibilities of the physician, investigator, patient and subject. For, in the last analysis, it is the personal relationship which is the foundation of both the science and art of medicine.

## Responsibility of the Physician

The physician in our society enjoys special privilege and must equally accept special responsibility. He is obligated to conduct himself and his practice in accordance with the strict standards of his profession and to devote himself to his patient's need and interest. Adherence to this well-known tenet is accepted and expected; it is also the legal duty imposed.

## Legal Requirement

The law requires that a physician who undertakes to treat a patient must possess and exercise the degree of skill and care usually possessed and exercised by other reputable physicians in the locality. If he holds himself out as a specialist, he must meet the standards in his chosen specialty (1). He does not guarantee to cure, but only perform as his qualified brethren would, in the light of the existing state of medical knowledge (2). Thus, a physician may not be justly charged with malpractice unless he acted or failed to act within the measure of practice set by his peers in his own or similar communities.

This standard includes the responsibility to be alert to medical advances, and to be guided—but not misguided—by novelty or innovation. As summarized by Long (3): "A physician is bound to keep abreast of the times. A departure from approved methods in general use, however, will render him liable if it injures the patient. There can be little doubt that if the first vaccination had proved disastrous and injured the patient, Dr. Jenner would have been liable for negligence." (Allen v. Voje, 89 N.W. 924 /1902/)

## Experimentation

This legal comment suggests that the physician experiments at his peril. Yet, physicians have always experimented in some way. Compared with

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other callings, medicine is perhaps most bound and expected to try to improve and not to follow routine. This is the course of progress. Although it has been said that every patient is a new experience, indeed, an experiment—since each individual or condition is unique—it is the deliberate departure from accepted modes that has posed the question of the legal status of the medical experiment.

### Summary of Court Opinion

“Experimentation” has been regarded as an element of malpractice, according to legal decisions in the United States and generally elsewhere. It is usually considered, in these contexts, as improper or unwarranted deviation from acceptable or standard practice. A brief account demonstrates that experimental procedures were early disapproved and that this view has been maintained through the years.

Slater v. Baker and Stapleton, (359, 95. Eng. Rep. 860 /1767/) is often cited as the basis for the concept that experimentation imperils the physician. Here, a prominent physician and the apothecary who called him refractured the patient's improperly healed leg and used a heavy steel implement to straighten the leg by extension. Expert testimony established that the then-accepted method was not extension, but compression, under such conditions. The court, although conceding the surgeon's good character and repute, stated that such action outside “the usage and the law of surgeons, was ignorance and unskilfulness”. The King's Bench then added the notion of experimentation: “Many men very skilful in their profession have frequently acted out of the common way for the sake of trying experiments. . . . It seems as if Mr. Baker wanted to try an experiment with this new instrument; and if it was, it was a rash action, and he who acts rashly acts ignorantly.” The court further disciplined the surgeon for not explaining his method to the patient, asserting that it is “reasonable that a patient be told what is about to be done to him, that he may take courage”.

A hundred years later, in the American case of Carpenter v. Blake (60 Barb. 488 /N.Y., 1871/ rev'd on other grounds 50 N.Y. 696 /1872/ damages were awarded because of the maltreatment of a dislocated elbow. Although only a change from ordinary method was shown, the court, citing Slater, held that the deviation was negligence. The court warned that before a new approach may be used, it must appear that it was successful in similar cases and in so many instances as to “establish satisfactorily the propriety and safety of adopting it.” It was recognized that this principle might be detrimental to the patient and to the progress of medicine, but the court declared. “The rule protects the community against reckless experiments, while it admits the adoption of new remedies and modes of treatment only when their benefits have been demonstrated, or when, from the necessity of the case, the surgeon or physician must be left to the exercise of his own skill and experience.” In other words, only successful trial may be attempted

This circuitous reasoning was followed in other American cases which presented errors in diagnosis or gross negligence or quack treatment. For example, when a phimosis was incorrectly diagnosed as an ulceration of the urinary canal and treated with flaxseed poultices, the failure to follow the usual method of slitting the prepuce was called “experimentation” (Jackson v. Burnham, 39 Pac. 577 /1895/). Likewise, a failure to recognize pus in the ovary after curettage (Allen v. Voje, 89 N.W. 924 /1902/) and nonsurgical treatment

of piles undertaken contrary to the indicated method (Owens v. McCleary, 281 S.W. 682 /1926/) were denounced as reckless experimentation. This charge was also the crux of the case against the charlatans who prescribed carbolic acid to remove smallpox pits (Graham v. Dr. Pratt Institute, 163 III App. 91 /1911/) and who employed a remote "radio method" to diagnose and treat a child with osteomyelitis (Kershaw v. Tilbury, 8 P. 2d 109 /1932/.) As recently as 1957, a noted vascular surgeon who used a larger amount of contrast fluid for aortography than specified in the manufacturer's instructions was charged with experimentation, but the court did not sustain this claim (Salgo v. Leland Stanford Hospital and Gerbode, 317 P. 2d 170 /1957/) (4). It is of interest, on the other hand, that the polio vaccine cases proceeded, not on the contention of experimentation, but on the implied warranty and suitability of the product for the purpose intended.

### The Meaning and the Lesson

It is clear that these illustrations have not entailed bona fide experimentation, that is, deliberate inducement of change for the purpose of understanding a physiological process or reaction to a drug or stimulus, primarily for the advancement of knowledge. These have all exemplified, instead, in the doctor-patient relationship, a want of knowledge or skill, failure to conform to an established method or school or other well-recognized improper practice. The distinction between these situations and modern research on human beings, well or sick, has been well and carefully analyzed (5) (6) (7). In many respects, the attitude and motive, coupled with a clear research design, distinguishes the deviant practice from controlled research, even though on the surface the means and techniques are similar. A basic element, the specific consent of the patient or subject to trial of the new procedure, admittedly for general as well as direct personal benefit, is lacking in the cases of "experimentation" which have been cited. As Curran (8) has commented, "These decisions admonish medical practitioners against using untried or still unproved treatment methods on patients where other and proved methods would in all likelihood have been successful. The rule of these cases would seem to be in accord with the ordinary test of negligence, i.e., that 'accepted standards' of medical practice must be followed. The question of consent to new methods is a key to many so-called 'experimentation cases'. If consent is absent, battery should be the charge, not negligence."

The fact is that there is as yet no clear legal recognition of the clinical experiment differentiated from clinical management of patients. The courts have been confronted with therapeutic problems and have resorted occasionally to the term "experiment" when the doctor has apparently departed, without permission, from the accustomed course of treatment.

### Right and Duty to Experiment

From these opinions and analysis, there is no prohibition against properly conducted research in the biomedical specialties on man. It is perhaps preferable to use this concept, rather than "experimentation," in view of its association with errors, omissions and maltreatments as well as failures to obtain informed and specific consent. However, the right and duty, as imposed on the medical professional, to move forward are not absolute. The limits derive not only from legal stricture but from the ethics and tenets of the professional

community, the standards and practices established by reputable researchers and their sponsors and, not to be slighted, the social climate and public attitude.

### **Legal Acceptance**

Despite appearances, the law in statute, court opinion and administrative rule, is neither rigid nor static. It is the instrument of our society intended to regulate man's relations to his fellows toward optimum individual expression consistent with community needs and custom. In the determination of special relationships, as in medicine, it looks to the expectations and practices established by the profession or business and, unless contrary to basic means for preservation of society, will accept the standards of the responsible practitioners.

Accordingly, just as the "community rule" applies in the doctor-patient relationship, it will serve for the practice of medical research. Thus, those who wish to assume the privilege of using man to further knowledge must demonstrate adequate training and qualification in this specialty, follow the techniques employed by reputable scientists and deal with subject-patients with care and conscience. Legal implications of conducting clinical research have lately been explored from the general (9) to such particulars as psychological aspects (10) and legal appraisals of mass screening (glaucoma) (11). The tenor of such analyses suggests the flexibility of the law and its concern for accommodating research needs, scientific requirements and medical judgment to personal and communal rights.

### **Ethical Considerations: Guidance in Practice**

The subject of limits and scope of experimentation has been scrutinized most extensively in terms of ethical, moral and religious principle. Particularly in view of the excesses disclosed in the trials of medical war criminals, concern has been expressed nationally and internationally to assure that such abuses of individuals and peoples will not recur. In consequence, the code of permissible medical experimentation noted in the Nuremberg judgment has been analyzed and expounded (12) (13) and many parallels have been suggested (14). At the same time, the belief that a code, implicitly a set of prohibitions and distinctions, will hamper rather than help medical research has been frequently and vigorously expressed (15) (16). It is also worth noting that the gravity of the problem and its intricacies have stimulated several interdisciplinary symposia, involving medicine, research, law, theology and administration (17).

These efforts and current studies of the actual practices in clinical research demonstrate that there is an emerging, evolving definition of the profession of medical research and acceptable rules for performance. Understandably, these cannot be developed at once or with conditions acceptable to all interests. But the objective that scientific advancement be consonant with moral and legal safeguards for the researcher and the patient-subject is universally acknowledged.

### **Summation**

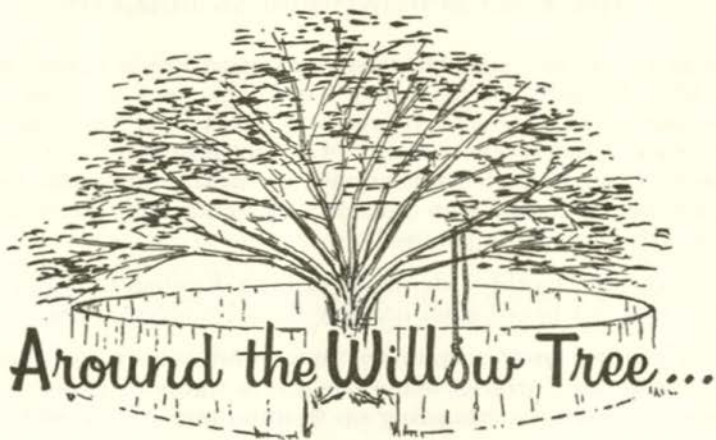
Although legal decisions have suggested that "experimentation" is beyond the bound of accepted practice and is undertaken at the peril of the physician, an analysis of the decisions discloses that this position is drawn from instances of negligence, omission, questionable method and failure to discuss risks with

the patient. It does not therefore apply to clearly formulated medical research on human beings conducted under appropriate investigational procedures. There is no case directly prescribing such research and there are no regulatory statutes or legal codes. The current concern and interest in the subject is mainly expressed in the ethical and moral considerations raised by researchers and others and in attempts to develop suitable practical procedures which will serve as guides for the research profession. Since the law is a living, dynamic instrument, responsive to the responsible methods which develop in this way, the practice of research for the general advancement of science will doubtless be governed, as is the current practice devoted to individual treatment and care, by the standards of the research community. Experimentation so defined, is therefore an acceptable type of practice with its own responsibilities and obligations and need not be considered an element of medical malpractice. ■

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### BUSHVELD VIGNETTE\*

February - 1964

Dear Folks,

All or most of whom I hoped to see last year, but didn't; hoped then to see this year, but won't; but whom, not seeing, I feel rapport with and believe that we are "together" in ways perhaps more real than those related to ears and eyes: -

It is indicative of my state of panting-along-behind program, events and work-load, that the notes for this letter were made on 5 Sept. 63.

#### THE DREAM

On August 28, 1963, about 9 p.m., a group of the few missionaries we have still in this country sat on the verandah of the old hostel in Lobito. Al Knight had one of those little bantam radios and as he tuned in on The Voice of America, the Reverend Martin Luther King began to speak.

We who have worked for many years in and for Africa, and for and with the Africans, understand, perhaps better than most people realize, the problems and the longings of the Afro-Americans. Perhaps I am one up on some of my colleagues, for I once worked as a public health doctor in the Deep South, and set up, under the Rockefeller Foundation, the first county health unit in one corner of the great state of Alabama.

At any rate, there we sat, spellbound from the first word, feeling our very souls caught up in the glory of the vision the Afro-American prophet saw and pictured in living words. As he climbed the golden ladder of his peroration, we were climbing with him. . . . "I have a dream! . . . I have a dream! . . ." The thought was exquisite, the words were perfect, the voice was a silver sword of love and passion, challenging the hearts of men to yield to truth, honour, and righteousness. . . .

Now he seemed to have reached the top. . . . Our eyes glowed as Kate looked at Marjory, Jean smiled at Eleanor, and Al and I beamed at each other. . . . He had said it! It had never been said better! It was an epitome, of millions of men's dreams and women's prayers, in America, here in Africa and in all the world. I think every one of us drew a long breath. . . .

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\*Dr. W. Sidney Gilchrist, Missao Evangelica do Bailundo, Vila Teixeira da Silva, ANGOLA.

But it was not over! . . . He was soaring upwards again, and we were carried with him, hanging on his every word, the very panting intake of his breath, as he burst into the full power and passion of his magic eloquence. "Let freedom ring! Let freedom ring! Let freedom ring!" . . . They must have been men of small souls and women of mean spirit who heard Martin Luther King at that hour and who did not long for the realization of his dreams and the freedom for which he prayed!

The next day, in a world-wide broadcast, an English announcer said, "We in this country had not heard such oratory for a hundred years."

And I was carried back in memory to a Sunday morning seven years ago and a church in North Carolina when the white minister threw a little bomb-shell into his congregation. Standing up to announce his subject, he said:

"I am about to preach on three heroes of the Faith—John Knox, Martin Luther, and Martin Luther King!"

#### THE DREAM AND YOU AND I

*This is where we come in.* You and I. For if the dream is to live and if the bells of *real* freedom (from discrimination, exploitation, etc. etc. . . including *contempt*. . .) are to ring out in truth, you and I have got to get cracking. . . *now!* Yes, *you* my minister friend, you teacher, you politician, you city councillor, you farmer, you neighbour, you *everybody*. And me!

The weight of human ignorance, indifference, prejudice, evil, hate, fancied superiority and baseless pride is terrific. . . shocking. . . frightening! Where you are and where I am. . . And because of these things, and because time is running out, you and I who believe that Jesus really *meant what he said*, and ALL that he said, have just *got to think* more, *talk* more, *do* more, and *be* more than we do and are now. We have got to stand up and be counted. And stay standing up. And moving up front!

We don't have to start with *Africa* or even with the Southern States, Pennsylvania or Chicago. We might even start with Canada!

"All this trouble about civil rights in the States is the fault of the Negroes and their leaders. Why couldn't they have been patient and waited for a while? After all they were getting along bit by bit—as fast as they deserved!"

That is the expressed thought of a very intelligent citizen of the nation whose passport I hold. I haven't seen him for years, and before his letter came, if you had told me that he could ever write or think that, I'd have called you a liar!

Then there was the minister who said to me on my last furlough: "Sid, don't talk so much about the Negroes in Nova Scotia being denied a square deal. They're happier the way they are!"

And there was the very well-educated and highly regarded lady who told me: "You have to be careful, you know. If you *give* them a little, they'll want a lot!" ("Give" means "stop denying"—for instance to stop denying their rights to all the freedom of a brotherhood—including the freedom that wasn't written into the Charter—the freedom from *contempt!*)

## THE DREAM AND AFRICA

What about Africa NOW?

I have three observations to share with you:—

1. After working here for most of the time since 1930, and after reading scores, if not hundreds, of books about Africa, and after meeting with many keen observers from all parts of the continent, I wonder whether there are, anywhere in the world human creatures more anxious, eager, and ready to be brothers and sisters to all men upon the earth who want them as equals; I wonder whether there are any people quite as outgoing, quite as anxious to be friends, quite as whole-hearted as the Africans.
2. I believe that if any part of Africa is repelled, or made a pawn in the game of international politics, or left any longer to the schemes and devices of those who would milk, mine and "keep down there" such a part or parts, for other peoples "up here" to continue to enjoy the economic privileges that they have enjoyed for generations or centuries at Africa's expense, then, a very few years hence such "up heres" are going to be "down theres," and the "down theres" will be the "up heres". (*They can't lose but some of our children or grandchildren may have to pay for their forebears' selfishness and greed.*)
3. I become ever more convinced that our job, our discipleship and our urgent duty to follow the Jesus to Whom we profess to belong, must take us right into the thick of politics—like it or not. Community, national and international politics. Let's get busy choosing better what we say and what we do not say, speaking out when others are afraid to speak, thinking harder, clearer, longer, choosing better what we read and listen to, and letting ourselves be ourselves, come what may, and say men of us what they may say! Let's study to be the kind of selves that Jesus' example, presence, teaching, leadership, and spirit *can* and *will* make us! I don't know of any other way that The Dream can come true!

Sid. ■

## INSURANCE CLINIC

We introduced ourselves as a "clinic" in our original ad in the Nova Scotia Medical Bulletin and now we are going to try to make it stick! Doctors are busy people because we, the public, put our trust in them and bother the daylights out of them. This, then, gives rise to the thought that we might be able to do for the doctors what they do for us; absorb their worries at least as far as insurance is concerned.

We are not being entirely facetious - we have a large and competent staff offering you a "one-stop" insurance market. Let us advise you on the following types of insurance:

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## Telephone Tactics

Note: The following material appeared in the Canadian Medical Association Journal in 1956 under the caption "Public Relations Forum" - it has been edited to coincide with present day PR problems.

THE TELEPHONE as an emissary of good will and good public relations cannot be overlooked. Properly used, it can be one of the best friends a doctor has; abused, it can cause trouble.

When talking face to face with a person, one's words are coloured by facial expression. The speaker on the telephone is a disembodied voice, and the same words, lacking the support of a smile or a look of interest, may carry an entirely different meaning. Telephone tactics, therefore, can affect doctor-patient relations for better or for worse. Carelessly answered questions and carelessly worded conversations over the telephone, coupled with an inappropriate tone of voice, lead, perhaps more than any other factor, to misunderstanding of intent and purpose.

Telephone courtesy should be stressed in the doctor's office. The telephone welcome should be as warm as the personal welcome. Cheerfulness, interest and friendliness should be reflected in the voice. The fact that the doctor or his assistant is hurried should not be conveyed by the speaker's voice or manner.

A patient calling the physician, in most cases, is surrounded with fear and worry because some member of the family is ill. From symptoms described, the doctor can frequently diagnose a condition as nothing serious and one that can await attention. But the anxious relative often does not understand this. Although the doctor may be busy, behind schedule, in a hurry, socially engaged, sleepy or annoyed, he must sound reassuring and interested on the telephone. The call should not be brushed off lightly.

If an emergency call should come in during the doctor's absence from the office or home, his receptionist or a member of his family should obtain this information: who is calling, address, nature of emergency, how the patient can be reached, patient's condition, the telephone number of caller. It is essential in gathering these facts that the person answering the telephone take sufficient time to get them accurately. This information should then be passed on to the doctor, who should always be within reach by telephone from his office or home.

Should the call not be urgent and the doctor feel that he cannot make the house call immediately, he can win friends by telephoning the patient to explain the fact, and to indicate when he might arrive. He should plan to arrive on time, or make another call to explain the second delay. This little courtesy will do much to set the patient's mind at ease and show that he has not been forgotten.

Many times a patient calls at the doctor's office for treatment of a minor condition and does not return. As time elapses the patient is left wondering: "How does the doctor know whether or not I recovered."

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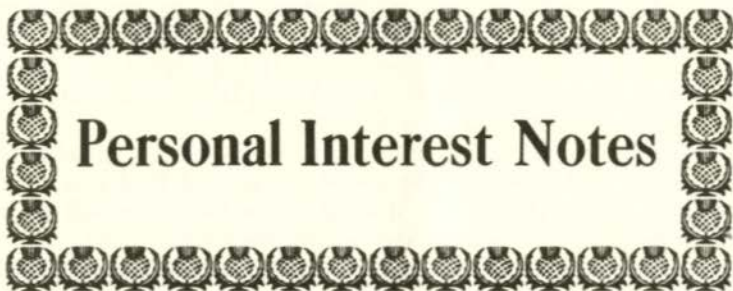
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## Personal Interest Notes

By the time this Bulletin reaches you, vacations will be over. Home will be the sailors from the sea, the trailers from The Trail, the campers from the tents and even the lawn mowers will have surcease from labour. Each will have commiserated with each over the weather, the Annual Meeting will have been held. With the fall season each will begin to plan for the winter. No rainy skies could dampen our delight in the cooperation we have had the last two months from the secretaries of the various divisions. Instead of a summer drought, like the Nova Scotia skies, the secretaries have showered us items. That is, relatively speaking. Our well still remains low. Please remember and report what amused you at Keltie and all the plans for the coming season in *your* division.

### APPOINTMENTS

Dr. Gordon W. Bethune has been appointed Professor of Clinical Surgery in the Dalhousie Medical School. Dr. Bethune who has established an enviable record as a teacher, will be responsible for the clinical programs of the Department of Surgery in association with Professor Ian MacKenzie, chairman of the department who will have a major responsibility for the research program and general policy of the whole department.

Dr. Bethune, a graduate of Acadia and Dalhousie and a Fellow of the Royal College of Surgeons of Canada, who, immediately after his graduation served with the RCAMC in Canada, Italy, France and Germany, has held various staff appointments in the Victoria General Hospital and at present is the president of the staff of that institution. In addition he has been on the active and consulting staff at Camp Hill Hospital. He intends to continue his private consulting practice to a limited degree.

We are grateful to the Secretary of the Section for Pathology for the following additional notes on the new incumbent of the Chair of Pathology, Dr. Douglas Waugh whose appointment was recorded in the Bulletin last month. "Professor Waugh is organizing extensive changes in the Pathology Institute. He is a keen sailor and boat builder and has bought a house at Boulderwood on the shores of the North West Arm. He brought the embryo hull of his latest boat with him from the Niagara peninsula and plans to be completing her during the Haligonian winter. (We wish him luck and trust he has warm gloves)".

"It is also reliably reported that a Senior Member\* of the Section for Bacteriology has become a keen horticulturist of late. He has achieved a major

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\*C. E. v. R . . . n.

breakthrough in developing a new rose-strain. He has named it the "Christine Keeler Rose." This grows profusely in any bed. It mixes well with asters and has a beautiful profume."

Dr. E. J. Cleveland, Director of the Fundy Mental Health Centre in Wolfville is the author of "The Family as Patient" an article which appeared in the May-June issue of "Canada's Mental Health." Recently there have been several comments in the press on the interest that is being shown in the new approach to the treatment of mental health patients put into effect by the Fundy Centre. Visitors recently have been a group of New York medical officials and also a man from Poland. The system utilizes the simultaneous presence of multiple interviewers of the professions of psychiatry, psychology and social work to collaborate with each other and with the family, to attempt solution of emotional and other problems. Dr. Cleveland says the reason for the widespread interest in the centre's methods is the fact that "many leaders in the field of mental health are looking for quicker and more effective ways of curing and preventing the patterns of behavior that appear to be related to the development of mental illness."

Dr. David Janigan, a Dalhousie graduate of 1957 who is now assistant professor of Pathology at the University of Kansas is to deliver a paper to the International Congress of Histochemists at Frankfurt. This congress meets every four years and is expected to attract 1500 doctors from all over the world. Dr. Janigan will also lecture at the University of Zagreb in Yugoslavia. He will visit Vienna and London en route.

At various times during the year the Bulletin has recorded the erection of new hospitals in various provincial centres. Two further hospitals have recently received Federal grants toward the building costs. The Highland View Hospital, Amherst - 112 beds has received \$283,500 and Queens General Hospital, Liverpool - additional 46 beds has received \$96,000.

#### MARRIAGES

Congratulations and best wishes to Dr. and Mrs. David Carson Murray whose marriage took place on August 1 in St. Mary's Basilica, Halifax. Mrs. Murray (née Anna Ruth Grant), who is a daughter of Mr. and Mrs. Allan R. Grant of Dartmouth, is a graduate of the Victoria General Hospital School of Nursing and Dr. Murray is a recent graduate of Dalhousie Medical School and is the son of Dr. and Mrs. Carson Murray of Springhill, N. S.

#### BIRTHS

To Dr. and Mrs. D. McD. Archibald, (Ruth Ann Morse), at Soldier's Memorial Hospital, Middleton, N. S. a son, on August 10, 1964.

To Dr. and Mrs. Grant Matheson, (née Nancy Rice), at the Grace Maternity Hospital, Halifax, a son, Jeffrey Rice Holmes, on August 1, 1964.

## OBITUARIES

It seems but a few months ago that the Bulletin recorded with sorrow the death of Dr. Perry Cochrane of Wolfville. Early in August Dr. Dara M. Cochrane, his brother, a well-known and highly respected doctor of River Hebert, died after a lengthy illness. Before graduating in medicine from Dalhousie in 1923, Dr. Cochrane had graduated from the Provincial Normal College in manual arts, and had served in the public schools and military hospital in Sydney for several years. He began a general practice in River Hebert where he continued until forced to retire due to ill health. He was president of both the county and provincial Medical Society. He was interested in education, politics, mining, lumbering, farming and in everything pertaining to the welfare of mankind. To his wife and children and the other members of his family we extend our sympathy.

Last month the Bulletin recorded briefly the death of Dr. Harry Samuel Smith aged 56, of South Brookfield, Queens County which occurred on July 28th. From our Lunenburg-Queens Society's correspondent comes the following note: "He died on Tuesday morning, July 28, following a very brief illness. He was a graduate of Acadia and McGill Medical School and practised in the North Queens area for several years. He taught for a time at the School for the Blind, Halifax, and at Pictou Academy. Dr. Smith was a keen fisherman and, as well, had a deep interest in local history. Only last fall he gave an interesting address to the Lunenburg-Queens Medical Society on the early inhabitants in this area. He personally collected many Indian Relics." We extend our sympathy to his wife, and sons, and to his sister.

We wish to extend sympathy also to Dr. Allister Cunningham of New Germany, whose wife, (née Joan Bert) died on August 9, 1964 in the Dawson Memorial Hospital, Bridgewater. She is survived also by three sons and several brothers and sisters.

Dr. Murray Snow of Halifax recently suffered the loss of his mother, Mrs. Lloyd Snow. To him also we extend sympathy.

CORRECTION—Many thanks to Dr. Corbett of the Cape Breton Division for sending in the correct placement of Dr. Tremblett. She is the Pathologist of St. Rita's Hospital, Sydney, but her appointment is to St. Elizabeth's Hospital, North Sydney.

Dr. Derek H. Spark did not receive his Fellowship in Psychiatry in 1963 but The Certification of the Royal College of Physicians and Surgeons of Canada. ■