Individual Studies

ACCIDENTS TO CHILDREN TREATED IN GENERAL PRACTICE

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At the Hengrove Child Health Centre (a general practice for children only), a recent special study of accidents as seen in general paediatric practice was made.

In some ways this is not a suitable subject for study as an unknown proportion of accidents in registered patients is treated elsewhere at clinics and hospitals, and this is particularly true of the more severe accidents. Fractures in particular are often not seen, although every effort is made to retain patients with simple fractures in the care of the practice once an x-ray diagnosis has been made.

The subject of accidents in general practice has been well dealt with by Dr. R. M. McGregor of Hawick, Scotland (McGregor 1950; 1953). His practice is a mixed one but separate figures are given for two age groups which concern me (0—4 years, and 5—14 years) so that some comparisons can be made.

For the purpose of this essay, " accidents " are defined as those illnesses classified in the *International Statistical Classification of Diseases Injuries and Causes of Death* 1948 (Group XVII). Therefore a few cases of reactions to various injections, car-sickness and other diseases not generally regarded as accidents are included.

This group of diseases has always ranked high in the records of my practice, making up 6.03% of all diseases in 1953 and 4.35% in 1952. " Cuts and Abrasions " always secures a place in the ten most common complaints treated in any year. In 1953, 20 children had stitches inserted.

During the years 1948-53 inclusive, 1099 accidents were treated. Table 1 shows the classification of the accidents and also the differing

TABLE 1

Accident	*Girls*	*Boys*	*Total*	*% age*	*Hawick*
Cuts and Abrasions ...	196	275	471	42.9	15.4
Sprains	98	96	194	17.7	22.9
Contusions	58	77	135	12.3	22.7
Burns	43	39	82	7.5	7.1
Reactions to Drugs ...	30	23	53	4.8	—
Foreign Bodies	25	21	46	4.2	5.6
Head Injuries	12	21	33	3.0	3.0
Fractures	10	22	32	2.9	11.1
Other Injuries	21	21	42	3.8	—

experience of the sexes. It should be remembered that throughout most of the period surveyed, slightly more girls than boys were at risk. Dr. McGregor's percentage distribution for an all-age practice is given for comparison.

The greater liability of boys to get involved in accidents is known to every mother of a mixed family, and is generally ascribed to boys being " more venturesome." One gets the impression that the children who do poorest in physical education lessons are those most liable to accidents. If this is so then a strong argument is made out for an important place in the school curriculum to be assigned to physical education.

The junior or infant boy is on average less skilled in using his body than the girl of the same age, so that this fact may explain a part of the male preponderance in accident statistics. In the case of adults, men are often more exposed to accidents by the nature of their occupations, a factor not present in childhood.

I agree with Dr. McGregor's finding that the male preponderance is less marked in the pre-school than in the school children. The accident rate per 100 patients in 1953 for the 0-4 age group is 19.0 for boys and 14.4 for girls, whilst the similar figures for the 5-14 age group are 29.5 for boys and 15.8 for girls.

Table 2 shows the distribution of accidents throughout the year. The excess in the summer months is understandable but the popularity of October is rather inexplicable.

TABLE 2

Mth.	*Jan.*	*Feb.*	*Mar.*	*Aprl.*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*
Acc.	76	59	99	93	135	133	125	129	122	144	94	66
%age	6.0	4.6	7.8	7.3	10.6	10.4	9.8	10.1	9.6	11.3	7.4	5.2

Dr. McGregor records the interesting observation that his patients seen with accidents had a higher disease rate than the general average, or in other words the accident-prone patient is also generally disease-prone.

The patient-year statistics for those patients who completed whole 12-months of their lives with birthdays in 1949, 1950, 1951 and 1952 have been scrutinised and 33 females and 42 males were discovered with two or more accidents recorded in the year. One boy had two or more accidents in a year during no less than three of the four year-groups examined. The average number of diseases per year for these arbitrarily defined " accident-prone " children was then determined *excluding* the accidents, and this figure was

compared with the average number of diseases per year suffered by all patients (including accidents).

Table 3 shows that the " accident-prone " patients did have higher average numbers of illnesses than the general population. It must be remembered that a mother who is liable to bring a child to the doctor for minor ailments is also more liable to bring the child with minor accidents, but I do not think that this wholly explains the higher number of illnesses in the " accident-prone."

TABLE 3

Age Group	GIRLS		BOYS	
	Average disease per patient		Average disease per patient	
	all cases	acc/prone	all cases	acc/prone
0–4 yr.	3.63	4.83*	3.84	5.21*
5–14 yr.	2.93	4.14*	2.56	3.22*

* Excluding accidents.

REFERENCES

McGregor, R. M. (1950). " Health Bulletin." Department of Health for Scotland. **8**, No. 4.
—— (1953). *Brit. med. J.*, **2**, 1306.

Classification Sheet Analysis

Entrants to the Research Register are asked on joining, to fill in a " Practice Classification Sheet." This information is requested in order that the research committee may be able to assess the spread of interest in any specific project over the various types of practice and so that in the investigation of any outbreak the number of patients at risk may be estimated.

With the help of the Department of Medical Statistics in Birmingham University, these sheets are now to be analysed. It is hoped that the analysis will give valuable information as to the range of variability between types of general practice in this country and that it will give information which will be useful in the planning of a College Research Unit.

Those who have placed their names on the research register are reminded that if their circumstances of practice have changed in any material degree they should ask the registrar for a further " Practice Classification Sheet " for re-submission.