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faculty scored higher than residents. Reported sources of information about automobile safety seats varied. Only 32.6 percent of physicians attributed any knowledge to their residency training program. Medical journals, national and local medical meetings, and discussions with fellow health personnel were frequently cited sources. The lay press, such as consumer magazines, were also mentioned. However, 67.4 percent of physicians felt they needed more information.

## Comment

The present study shows inadequate factual knowledge about automobile safety seats among resident physicians in primary care as well as among the teaching faculty. Although both the pediatric and family practice departments at the University of Kentucky have at least one faculty member especially interested in automobile safe-

ty, the amount of practical knowledge provided or retained by the residents appears poor.

Lack of interest may account for much of the lack of knowledge. Many physicians still feel that accident prevention and automobile safety are not their responsibility. Apparently, personal experience with safety seats as a parent is a large factor in raising the physician's level of knowledge and awareness.

Residency training programs must increase efforts to provide a groundwork of education for physicians about automobile safety seats. Means must be sought of providing practical experience with the seats as well as promoting general awareness of automobile accident statistics and dynamics and cognizance of the arguments in favor of safety seat use.

#### Reference

1. Charles S: Step child of American pediatrics: Child transportation safety. Pediatr Ann 6:726, 1977

# **Inpatient Documentation for Family Practice Residents**

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In 1978 the American Academy of Family Physicians (AAFP) developed a manual system of documentation using a  $3 \times 5$ -inch data card to record inpatient diagnoses and procedures as a service to family practice residents to provide residency graduates with data to support their requests for obtaining hospital privileges and for

self-evaluation. The actual effectiveness of this method has yet to be evaluated, and the degree of its acceptance by residents has not been established. Throughout the country, however, documentation has continued to be implemented using various methods. Little is known of the extent, effectiveness, costs, and value placed on the use of the AAFP system by residents and faculty. As part of the ongoing development of the documentation program of the North Carolina Academy of Family Physicians (NCAFP), the Department of Family Medicine, University of North Carolina at

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0094-3509/82/080798-03\$00.75 1982 Appleton-Century-Crofts





**DESCRIPTION** VERMOX (mebendazole) is methyl 5-benzoylbenzimidazole-2-carbamate.

ACTIONS VERMOX exerts its anthelmintic effect by blocking glucose uptake by the susceptible helminths, thereby depleting the energy level until it becomes inadequate for survival. In man, approximately 2% of administered mebendazole is excreted in urine as unchanged drug or a primary metabolite. Following administration of 100 mg of mebendazole twice daily for three consecutive days, plasma levels of mebendazole and its primary metabolite, the 2-amine, never exceeded 0.03 µg/ml and 0.09 µg/ml, respectively.

INDICATIONS VERMOX is indicated for the treatment of Trichuris trichiura (whipworm), Enterobius vermicularis (pinworm), Ascaris lumbricoides (common roundworm), Ancylostoma duodenale (common hookworm), Necator americanus (American hookworm) in single or mixed infections. Efficacy varies as a function of such factors as pre-existing diarrhea and astrointestinal transit time, degree of infection and helminth strains. Efficacy rates derived from various studies are shown in the table below:

	Whipworm	Common Roundworm	Hookworm	Pinworm
cure rates mean (range)	68% (61-75%)	98% (91-100%)	96%	95% (90-100%)
gg reduction mean (range)	93% (70-99%)	99.7% (99.5%-100%)	99.9%	=

CONTRAINDICATIONS VERMOX is contraindicated in pregnant women (see Pregnancy Precautions) and in persons who have shown hypersensitivity to the drug

PRECAUTIONS PREGNANCY: VERMOX has shown embryotoxic and teratogenic activity in pregnant rats at single oral doses as low as 10 mg/kg. Since VERMOX may have a risk of producing fetal damage if administered during pregnancy, it is contraindicated in pregnant women.

PEDIATRIC USE: The drug has not been extensively studied in children under two years; therefore, in the treatment of children under two years the relative benefit/risk should be considered.

ADVERSE REACTIONS Transient symptoms of abdominal pain and diarrhea have occurred in cases of massive infection and expulsion of worms.

DOSAGE AND ADMINISTRATION The same dosage schedule applies to children and adults. The tablet may be chewed, swallowed or crushed and mixed with food. For the control of pinworm (enterobiasis), a single tablet is administered orally, one time. For the control of common roundworm (ascariasis), whipworm (trichuriasis), and hookworm infection, one tablet of VERMOX is administered, orally, morning and evening, on three consecutive days. If the patient is not cured three weeks after treatment, a second course of treatment is advised. No special procedures, such as fasting or purging, are

HOW SUPPLIED VERMOX is available as chewable tablets, each containing 100 mg of mebendazole, and is supplied in boxes of twelve tablets. VERMOX (mebendazole) is an original product of Janssen Pharmaceutica, Belgium.

US Patent 3,657,267 December 1979

Committed to research... because so much remains to be done.

Tableted by Janssen Pharmaceutica, Beerse, Belgium for



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Chapel Hill, acting as the central agency for the NCAFP project, undertook a survey of documentation in family practice residency programs with the following purpose: (1) to identify the extent of documentation in the surveyed programs, and (2) to establish how effective the documentation was perceived to be by the responding program directors.

# Method

In 1981 a questionnaire was mailed to all 385 residency programs identified by the AAFP. A total 343 (89 percent) responded to the initial mailing. The questionnaire inquired about the existence of documentation in each program, whether participation was mandatory, the estimated degree of compliance of the residents, recording and data analysis methods, and how the data were used.

### Results

Out of 343 responding programs only 62 (18 percent) did not use some form of documentation, while 11 (4 percent) were in some stage of developing a system. The responding programs were divided into three groups on the basis of numbers of residents. Small programs (83 in number) had fewer than 13 residents, medium-sized programs (86) had between 13 and 19 residents, and large programs (82) had at least 20 residents. Resident participation in documentation was said to be mandatory in 175 (64 percent) of the programs that undertook documentation. Documentation was mandatory in 72 percent of the small programs, 67 percent of the medium-sized programs, and 51 percent of the large programs. Residents in their first, second, and third years participated in documentation in nearly all the responding programs. Collaborative documentation involving other sites was noted by 25 percent of the respondents.

With regard to the method of documentation, only 72 (26 percent) of the programs used the established AAFP green card system, although 25 programs (12 percent) used the AAFP card in conjunction with some other data collection system. Altogether 135 programs, the majority, had devel-

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oped and used their own method of collecting documentation data.

One half of all the programs requested that residents record all inpatient diagnoses, whereas a majority (76 percent) indicated that all procedures should be recorded. Twenty percent of the programs requested their residents to record only specific procedures deemed important for family practice. Mechanical data processing of the information collected by residents was undertaken in 112 (39 percent) of the programs.

In 56 percent of the large residencies, the overall estimated compliance was 50 percent or less; in other words, less than 50 percent of procedures or diagnoses experienced by the residents were estimated to be recorded in the documentation system. There appeared to be no significant difference between the compliance of residents in either small, medium, or large residency programs. However, in those residencies in which documentation was mandatory, estimated compliance was significantly greater than in the "self-motivated" programs. Sixty-one percent (98) of the "mandatory" programs stated that the residents achieved a compliance of 50 percent or more compared with 19 percent (19) of the nonmandatory programs (P = 0.0001). A significant number of "nonmandatory" programs (49 percent) indicated that their residents recorded 30 percent or less of their inpatient experience.

Although 95 percent (268) of the responding programs indicated that the documentation was used for the residents' personal records, only 42 percent (120) offered some routine feedback based on the data. In 56 percent (157) the residents received a cumulative report of their hospital experience on completing residency training. This, of course, would be affected by the recorded compliance mentioned earlier.

## Comment

Certain points are evident from the survey. Most programs employed some type of documentation system, although there was a lack of uniformity in the type of methods used. The majority used their own system; 38 percent used the AAFP green card system, either alone or in combination with another form of data collection. The recording of procedures was seen to be the major purpose of documentation; the recording

of all diagnoses was undertaken in less than 50 percent of the programs. This may be the result of the need to record procedures as a basis for obtaining hospital privileges as well as the greater logistical difficulty of recording large numbers of diagnoses over a three-year period. In spite of the establishment of documentation in 72 percent of the responding programs, recording compliance by residents was low. This lack of compliance constitutes a major problem, since inadequate documentation as a basis for gaining hospital privileges could work against the applying physician.

One possible reason for the poor compliance may have been the relative lack of routine feedback of data to the residents on a regular basis. This suggests that faculty, although perhaps subscribing to the idea, are not fully committed to its implementation. Small and medium-sized programs showed no greater compliance in recording than large programs, suggesting that the close relationship between faculty and residents said to occur with small numbers of residents was not an important factor in promoting documentation. However, when documentation was mandatory for residents (or said to be mandatory in principle), compliance was estimated to be higher than in the "nonmandatory" programs.

Documentation of inpatient procedures and diagnoses is a widespread phenomenon in family practice residency programs, and although it is supported by the specialty in theory, it may not be very effective in practice. It is possible that increased faculty commitment with orientation and frequent feedback to residents could improve the situation considerably. Unfortunately, the value of documentation, which requires certain resources within each program, is often only retrospectively recognized by residents after they go out into practice. Consideration should also be given to documentation of residency experiences as a potential to providing data for curriculum development in the hospital setting as well as establishing a data base for useful research in family practice residency programs.

#### Acknowledgement

This project was sponsored by the North Carolina Academy of Family Physicians Subcommittee on Documentation. Claudia Egelhoff, MPH, provided statistical support.