

TABLE 4.—NUMBER AND PERCENTAGE OF STUDY DEATHS IN "APLASTIC ANEMIA" CATEGORY EXPOSED TO CHLORAMPHENICOL,¹ BY AGE GROUP

Age group, years	Aplastic anemia deaths	Exposure to chloramphenicol		
		Number	Percent of total deaths	Percent of exposure
All ages.....	86	25	29.1	100.0
<15.....	26	10	38.5	40.0
15-44.....	25	8	32.0	32.0
45-64.....	16	4	25.0	16.0
>64.....	19	3	15.8	12.0

¹ Within 6 months of clinical onset of aplastic anemia.

The following is a résumé of case history information for the 30 persons in the study sample reported to have received chloramphenicol.

"Ten individuals under age 15 years, two boys and eight girls, and all in the category 'aplastic anemia', received chloramphenicol. Nine had taken the drug for upper respiratory conditions (including the complications of otitis media, allergies, rubeola, and tonsillitis) and one for furuncles. Most of the children had taken the drug of three or more episodes of illness, and also received other antibiotics. The total dosage for all courses of treatment was estimated to be 1-15 g. The time interval between the last ingestion of chloramphenicol and the clinical onset of aplastic anemia was as follows: not stated in two; 2-3½ months in four, and in four others, previously treated with chloramphenicol, the symptoms of aplastic anemia occurred while taking the drug.

"Six individuals, aged 15-34 years, three males and three females, all in the 'aplastic anemia' category, received chloramphenicol. They were treated for urethritis (two), pharyngitis, a cold, pneumonia, and acne. Four had a single course of the drug with estimated dosage of 1-10 g; aplastic anemia followed in 1 week, 2 months, 3 months and 4 months. One had two courses with a total dosage of approximately 45 g, followed in one month by aplastic anemia. The remaining person had more than 50 g in small daily doses over a 5-month period terminating with onset of aplastic anemia.

"Three women, aged 35-54 years, had chloramphenicol. One, treated with several short courses of the drug for furuncles, had a diagnosis of anemia 6 months before treatment. The relationship of this anemia to the furuncles and to the manifestations of aplastic anemia 6 months after the furuncles is not clear. Two had chloramphenicol in the hospital following minor surgery 1 month and 6 months before onset of aplastic anemia.

"Six individuals, aged 55-74, two men and four women, were treated with chloramphenicol. Three had only one course of the drug in a period of 5-10 days followed in 1½, 2 and 3 months by aplastic anemia. The conditions treated were upper respiratory infection, virus pneumonia, and chest cold. Three persons had intermittent treatment over periods of 6-9 months with dosages estimated at 25-100 g. The conditions treated were chronic purulent bronchitis unresponsive to other drugs, chronic urinary tract infection in a person who had reacted adversely to other drugs, and chronic finger nail infection.

"Five individuals, aged 75 years and over, four men and one woman, received chloramphenicol for chronic respiratory symptoms, pneumonia, and urinary tract infections. In three cases dosage and dates were not stated. One man received a total of about 28 g over a 21-month period and had evidence of aplastic anemia 2 months after last treatment. Another received 22 g in two courses within a 2-week period and developed symptoms of aplastic anemia 2 months later."

The 30 study deaths with chloramphenicol exposure differed epidemiologically from the 108 study deaths without record of chloramphenicol.

1. The chloramphenicol-exposed group was younger than the remainder of the study sample. The average age for the 30 chloramphenicol-exposed deaths was 35.6 years and for the 108 not so exposed, 52.2 years.

2. The average time between clinical onset of blood dyscrasia and death was shorter among those exposed to chloramphenicol than among those not so exposed—an average of 3.1 months for those with chloramphenicol compared to 7.3 months for those without chloramphenicol.

3. There was a concentration of cases with clinical onset in the months of April and May among persons exposed to chloramphenicol (Fig. 5). This peak af-