processes are suspected, a dose of no more than 50 mg./kg./day but not less than 25 mg./kg./day of the succinate will produce therapeutic concentrations of the drug in the blood. In this group particularly, the concentration of the drug in the blood should be carefully followed by available microtechniques. Again, the routes of administration noted above apply.

CHLOROMYCETIN INTRAMUSCULAR (Steri-Vial No. 65)

For use only by intramuscular injection. Not recommended for pediatric use. Supplied in Steri-Vials. Suspension for use is prepared by injecting 2.5 cc. water for injection (not containing benzyl alcohol) into the Steri-Vial and suspending the contents by agitation.

2.5 cc. of suspension prepared with water will contain 1 Gm. chloramphenicol and 10 mg. sodium carboxymethylcellulose in 0.9 per cent sodium chloride solution containing 1:10,000 Phemerol Chloride (benzethonium chloride, Parke, Davis and Company) as a preservative.

Adults—dose recommendations: May be given in divided doses at 8- or 12-hour intervals. Blood levels achieved with 50 mg./kg./day with this preparation will be adequate for infections due to very susceptible organisms. Normal adults require 150 mg./kg./day the first day to achieve peak blood levels comparable to those achieved with the lower dosage of other parenteral dosage forms. This should be followed by 50 mg./kg./day thereafter. Since blood concentrations of the drug rise slowly, this product is unwieldy for treating infections caused by less susceptible organisms.

CHLOROMYCETIN SOLUTION AMPOULES (Ampoule No. 258)

For use only by intravenous infuston as a temporary substitute for other more preferable preparations. Not recommended for pediatric use. 2 cc. ampoules containing 0.5 gram chloramphenicol dissolved in 50 per cent aqueous solution of N,N-dimethylacetamide, with tartaric acid and sodium tartrate equivalent to 5 mg. tartaric acid per cc. Occasionally crystals or a second liquid layer may form at low temperatures. These will redissolve when the ampoules are warmed to body temperature and shaken. Withdraw contents of ampoule into sterile dry syringe and needle and add rapidly under surface of diluent (physiological sodium chloride solution or 5 per cent dextrose solution). Each ampoule should be diluted to at least 100 cc. but not more than 250 cc.

Adults—dose recommendations: 50 mg./kg./day divided into 4 doses at 6-hour intervals by intravenous infusion is effective in most infections due to susceptible organisms.

SIDE EFFECTS OF CHLORAMPHENICOL THERAPY

Untoward reactions in man are infrequent with chloramphenicol. Reactions attributed to chloramphenicol may be considered under the following headings:

Blood Dyscrasias

Aplastic anemia, hypoplastic anemia, thrombocytopenia, and granulocytopenia have been associated with the administration of chloramphenicol.

The following statement is quoted from NEW AND NONOFFICIAL DRUGS 1960, evaluated by the A. M. A. Council on Drugs, page 82:

"Although serious and even fatal blood dyscrasias are known to occur after the administration of chloramphenicol, current data seem to indicate that these reactions are rare. Blood dyscrasias have occurred with both short-term and prolonged therapy with this drug. Bearing in mind the possibility that such reactions may occur, the physician may use chloramphenicol in the treatment of serious infections caused by organisms which are susceptible to its antibacterial effects. Chloramphenicol should not be used in treating colds, influenza, viral infections of the throat, or as a prophylactic agent to prevent bacterial respiratory disease."

When blood counts show unusual deviations such as leukopenia or thrombocytopenia, chloramphenicol should be discontinued.

Gastrointestinal Reactions

Gastrointestinal reactions which have been reported with oral administration of chloramphenicol have not been a problem with parenteral administration.

Hypersensitivity Reactions

Angioneurotic edema and vesicular and maculopapular types of dermatitis have been reported in patients sensitive to chloramphenicol. Urticaria and vesicular lesions also have been observed. Dermal lesions, usually mild, ordinarily subside promptly when the drug is stopped.

The Jarisch-Herxheimer reaction has been reported after chloramphenicol therapy in patients with syphilis, brucellosis, and typhoid fever. In patients with typhoid fever treated with chloramphenicol, several investigators have recorded a "shock-type reaction" characterized by circulatory collapse, attributed to sudden release of typhoidal endotoxin in an already weakened patient. Unlike the Herxheimer reaction, temperature is usually depressed, but exacerbation of fever has been reported. Recrudescense usually appears within 24 hours of the start of chloramphenicol therapy and persists from 24 to 48 hours.

Neurotoxic Reactions

Headache, mild depression, "dazed feelings", internal ophthalmoplegia, mental confusion, and delirium have been described in patients receiving chloramphenicol for a variety of infectious diseases. Optic and peripheral neuritides as probable effects of prolonged chloramphenicol therapy have been reported. Analysis of these cases suggests that these neurotoxic reactions were related both to large total doses of chloramphenicol and long periods of administration. The range of total dosages of chloramphenicol was from 190 to 1600 Gm. Toxic symptoms appeared between 42 days and 22 months after the start of therapy. Five patients had blurred vision as the most prominent symptom and in a sixth, the initial complaint was blindness. This latter was the only one with permanent impairment of vision. Peripheral neuritis resolved in all patients except one, who still had minor residual symptoms 13 months after onset. If symptoms of decreased visual acuity or peripheral neuritis occur during therapy, prompt withdrawal of the drug is indicated and large doses of oral or parenteral vitamin B complex should be considered.

Other Reactions

The use of this antibiotic, as with other antibiotics, may result in an overgrowth of nonsusceptible organisms, particularly monilia. Constant observation of the