[DOH ADMINISTRATIVE ORDER NO. 2010-0023, July 13, 2010]

GUIDELINES ON DEWORMING DRUG ADMINISTRATION AND THE MANAGEMENT OF ADVERSE EVENTS FOLLOWING DEWORMING (AEFD)

I. BACKGROUND

Intestinal helminthiasis or soil transmitted helminthiasis (STH) remains a global public health problem. It affects the most vulnerable sector of our society – the children aged 1 to 12 years old who are in a period of intensive physical and intellectual growth. STH infection have an adverse effect on cognitive development and school attendance and is also associated with nutritional deficiencies particularly iron and vitamin A. Significant improvement in language and memory development have been observed and iron status and vitamin A absorption have improved after treatment or helminthiasis (WHO & UNICEF joint statement).

A nationwide prevalence survey of soil-transmitted helminthiasis among children 12-71 months old revealed that 66% are infected (de Leon, Lumampao, 2004), while 54% among schoolchildren have worms (Belizario et al, 2006). Recent evidence confirms that a significant reduction in the burden of disease due to helminths can be achieved through regular mass deworming directed to all high risk groups (WHO and UNICEF). Recognizing the high burden of worm infection, the DOH established the STH Control Program (STHCP) in 1999 through the issuance of Administrative Order No. 30-F S 1999.

Mass deworming of 1 to 12 years old children are done twice a year or every six months. For preschoolers (1-5 years old), deworming is done during the nationwide Garantisadong Pambata (GP) campaign in April and October. For the schoolchildren, deworming is scheduled every January and July per AO No. 2006-0028.

Currently, albendazole 400mg or mebendazole 500mg are the drugs of choice for mass treatment of intestinal infections. Both drugs are included in the WHO model list of essential medicines for the single-dose treatment of STH. The anthelminthics drugs are cheap so that regular mass treatment are both affordable and sustainable (WHO and UNICEF).

Albendazole and mebendazole have an excellent safety record; adverse reactions are minimal and transient and serious adverse experiences are extremely infrequent. Temporary minor reactions following treatment occur mainly in infected people as a result of the body’s response to the dying worms. The heavily infected people are more likely to experience such reactions. Generally, the number of people reporting adverse reactions is highest at the first round of treatment and tends to decrease during subsequent rounds (WHO).

However, there are cases of reactions to deworming drugs that have not been documented in the past years since the national deworming was implemented. Hence, this guideline on the management of AEFD is develop to prepare field workers in the management of any untoward reaction and to document and report correctly such reactions to the type of deworming drugs given orally to recipients.

II. OBJECTIVES

This Order aims to guide health workers and providers on the following:

1. Administering deworming drugs to different age groups.
2. Management of the adverse events following deworming, and AEFD drug of choice
3. AEFD reporting and recording

III. SCOPE OF THE APPLICATION

This order shall apply to all national, regional and local Offices and stakeholders involved in the deworming program of the DOH.

IV. DEFINITION OF TERMS

1. **Adverse drug reaction (ADR)** is a noxious and unintended reaction, which occurs at doses normally used in humans for prophylaxis, diagnosis or treatment of disease, or for the modification of physiological function (WHO).

2. **Adverse event following deworming (AEFD)** is a medical event that happens after ingestion of deworming drugs. While the drugs are **safe** and **effective** against helminths, adverse reactions which are usually mild and transient may occur within 8-12 hours after ingestion which is the half life of albendazole.

3. **Eligible population** is a group of individuals qualified or entitled to receive anthelminthic treatment in preventive chemotherapy interventions (WHO).

4. **Mass deworming** is the giving of an antihelminthic or deworming drugs to an entire group of people without prior diagnosis of current infection to get rid of intestinal parasites which include hookworm, *ascaris,* and *trichuris*

5. **Preschool children** are all children between the ages of 1 and 5 years who are not yet attending school but may be in the daycare centers (WHO).

6. **Preventive chemotherapy** is the use of anthelminthic drugs, either alone or in combination, as a public health tool against helminth infections (WHO).

7. **School children** are all children between the ages of 6 to 12 years old or those children enrolled in Grade 1 to grade 6

8. **Serious adverse experience (SAE)** is defined as an adverse experience following treatment with a drug that results in any of the following: death, life-threatening condition, in-patient hospitalization or

prolonging of an existing hospitalization, persistent or significant disability/incapacity, congenital anomaly, cancer or overdose (WHO).

9. **Soil-transmitted helminthiasis (STH)** is an infection caused by nematodes *Ascaris lumbricoides (roundworm), Trichuris trichiura* (whipworm) or hookworm.

V. GENERAL GUIDELINES

1. Recommended drugs for mass deworming program of DOH

The following drugs which are listed in the Philippine National Drug Formulary, Volume 1, 5th Edition 2000, are recommended for mass treatment. The same drugs are also recommended by WHO and are being used in all countries which conduct mass treatment in their fight against worms.

- Albendazole 400 mg chewable, flavored tablet
- Mebendazole 500 mg chewable, flavored tablet

Albendazole and mebendazole are benzimidazole derivatives which are very effective against single or mixed infections of intestinal worms. These drugs have the widest range of therapeutic activity and are known to be effective against all worms. They fulfill the criteria for the choice of drug for mass deworming, being **safe, economical** and **simple** because they are given as single dosage, thus making the administration easy even for non-health workers.

Albendazole and mebendazole work by interfering with the energy producing processes of worms including impairment of glucose metabolism leading to the worms' immobility and death.

All persons 1 year old and above who may or may not have intestinal worms such as: roundworm, whipworm, hookworm, pinworm, and other intestinal parasites, regardless of when the last deworming was given to them, can take the deworming drug. Both drugs shall be taken ON FULL STOMACH.

2. Drug dosages and frequency of deworming by target groups

The eligible populations for albendazole or mebendazole are the following:

Preschool (1-5 years old) and school age (6-12 years old) children, women of childbearing age including pregnant women in the 2nd and 3rd trimesters and lactating women, high risk adults such as food handlers/operators, farmers, miners, soldiers and Indigenous peoples.

Target groups	Drug Dosage	Frequency*
12 – 24 months	Albendazole: 200 mg or ½ tablet Mebendazole: 500 mg tablet	Every 6 months
2 yrs old and above (preschoolers,school children, pregnant, lactating adults, women	Albendazole: 400 mg or 1 tablet Mebendazole: 500 mg tablet	Every 6 months