

DDG - National Hospital of Sri Lanka, All Provincial Directors of Health Services, All Regional Directors of Health Services, Directors of All Teaching Hospitals, Directors of All Provincial General Hospitals,

Directors / Medical Superintendents of All District General Hospitals and Base Hospitals,

<u>Administration of Benzathine Penicillin to Patients with Rheumatic Fever and Rheumatic Heart Disease</u>

Rheumatic fever is a major cause of cardiovascular disease in our country, and disability and death from rheumatic heart disease is mainly due to recurrent attacks. The efficacy of benzathine penicillin prophylaxis in preventing recurrences of rheumatic fever is a major advance that has strikingly reduced the morbidity and mortality from rheumatic fever. Hence, all individuals who have had a documented attack of rheumatic fever, whether or not they have rheumatic heart disease should be given regular prophylactic benzathine penicillin. However, the fears generated by an occasional report of a fatal reaction following benzathine, have deterred physicians and patients from using this effective method of prevention. Such life-threatening reactions are very rare if correctly administered, and deaths directly related to the administration of benzathine has not been reported in children. Therefore, it is important to conduct a well -organized clinic to ensure the safe administration of benzathine and to gain the confidence of both patients and parents. Given below are some practical guidelines

- Each institution should run a special benzathine penicillin clinic on a specified day of the week. It should be conducted by a medical officer with a team of nurses trained in the correct technique of administering the injection and in handling an anaphylactic reaction.
- Records of the name, age, clinical condition, date of drug administration and the next due date should be maintained for each patient. II possible, defaulters should be sent a reminder.
- An emergency tray with adrenaline (1 in 1000) drawn in a syringe, hydrocortisone, antihistamine, IV fluids, infusion sets, oxygen and mask should be readily available in the clinic. Store benzathine in the fridge (2 - 80 C) till needed.
- Before administration of benzathine for the first time take a detailed history of patient's previous reactions to penicillin and other allergies. Do not administer-if they give a strong history of penicillin allergy. If no, do a penicillin sensitivity test (ST) with benzylpenicillin. If the ST is negative administer benzathine. Repeat ST before every injection of benzathine.
- Benzathine penicillin should be freshly prepared by diluting in water for injection (3 5 ml) and administered by deep IM injection to the lateral aspect of the mid thigh of the patient (to achieve good bioavailability), in the sitting or lying down position, alter ensuring that the needle has not entered a blood vessel by aspirating and checking for blood. After injection, the patient should be kept under observation for one hour at the clinic.