Thalassemia, a blood disorder common in Asia

Thalassemia is a hereditary blood disorder, which is commonly found in Mediterranean Sea, Middle East and Southeast Asia. Because of the gene mutation, patients with thalassemia cannot produce sufficient amount of haemoglobin and cause hemolytic anaemia. Haemoglobin is a molecule in red blood cells, which transports oxygen to all parts of the body. In Hong Kong, around 300 people have severe form of thalassemia.

There are 2 types of thalassemia, alpha and beta, which named for the two protein chains that make up normal haemoglobin. Approximately 150,000 and 410,000 persons are the gene carriers with alpha and beta thalassemia respectively in Hong Kong and they can pass the gene to their children. If one parent is carrier and the other normal, then 1 in 2 children will be a carrier and does not show any symptoms. However, if both parents are carriers of the same type of thalassemia genes, 1 in 4 children will have severe form of thalassemia or 1 in 2 children become a carrier.

Carriers with no symptom do not require any treatment, while patients with severe symptoms may need regular blood transfusions, iron chelation therapy, injection, medication or bone marrow transplantation.

Patients with thalassemia should increase folic acid intake, including green vegetables, yeasts and grains. Carrier detection can be diagnosed by simple blood test. It is advised that a couple should have screening before marriage or before bearing a child, otherwise, antenatal screening should be done at an early stage of pregnancy.