

In order to improving and promoting the experts skills in detecting alterations in the quality of fluorescence light intensity or severity of the disease we recommend:

A. prepare three different samples with **sufficient, relatively weak and very weak** enzymatic activity as follows:

1. Choose a normal individuals blood with hemoglobin value of 14 to 15 g/dl as the normal sample. The enzymatic activity of such sample will be about 100% (sufficient) and will have strong fluorescence.

2. Heat one part of above blood sample in a separate closed tube at 56°C for 20 minutes. Use this sample with an attenuated enzymatic activity and lacking fluorescence as the negative (extremely weak) sample.

3. Mixing the blood samples prepared in part 1 and 2 in equal volumes to obtain sample with a 50% enzyme activity. This sample represented as weak sample.

B. Test all three samples simultaneously and compare the strength of the fluorescence.

C. When needed you can obtain samples with %75 and %25 enzymatic activity by mixing equal volumes of the solutions in part 1 and 3, or 2 and 3 respectively, and then compare their fluorescences as well.

Indications:

More than half of neonates suffered from jaundice have G-6-PD enzyme deficiency [3]. Screening for the G-6-PD activity has been mandatory in an attempt to prevent Kernicterus and manage the hemolytic crises in the affected individuals. This program has been approved and implemented by the European Economic Association public health research committee.

References:

- 1- WolfBHM Weanin RS et al, clin Chim Acta (1987) 168;129
- 2- Missiou - TsagaraKi S. , J. Pediatr. (1991)119 ; 293
- 3- Doxiadis SP, Fssas PH , Valaes T , Lanser (1960)2 ;44
- 4- Bartsocas Ch ; Red cell enzymopathies and screen of EED workshop , London march 1983 .in: Screen and Management of Potentially Treatable Genetic Metabolic Disorders, Benson PE (ed) , London, MTP Press