



The Royal College of Pathologists

Pathology: the science behind the cure

Object 7: Neonatal blood spot card



What is it?

The neonatal blood spot card is a specialised piece of filter paper onto which drops of newborn babies' blood are collected so that it can be tested for a range of potentially treatable conditions.

History

The blood spot card was introduced in Scotland by **Robert Guthrie** in 1963. It has the great advantage over standard blood testing that only a small volume of blood is required and the dried cards can be easily transported and stored. This makes the test more acceptable to parents and means that scientists working in regional specialist pathology labs can process the cards, ensuring consistent and accurate results.

Pathology

The blood spot card enables scientists to test newborn babies for the following diseases: cystic fibrosis, phenylketonuria (PKU), congenital hypothyroidism, sickle cell disease, thalassaemia and medium chain acyl Co-A dehydrogenase deficiency (MCADD). Although rare, these are all conditions where early treatment makes a significant difference. Diagnosing the diseases at an early stage can prevent serious disability and death.

Find out more

To find out more about blood spot testing and the diseases that can be detected, please visit the UK [Newborn Screening Programme Centre](#) website.