Phenylketonuria screening: clearly beneficial

Newborn babies are routinely screened for an inherited disease called phenylketonuria (PKU). Babies with PKU are unable to process phenylalanine, a substance which is present in everyday foods such as milk, meat, fish, and eggs. If the condition is left untreated, phenylalanine accumulates in the blood and leads to serious, irreversible, brain damage. PKU testing involves taking a few drops of blood from the baby's heel, which are analyzed in a laboratory. If this 'heel prick test' is positive, and the diagnosis is confirmed by further tests, babies are treated with a special diet to help them develop normally.

Abdominal aortic aneurysm screening: proceed with care At the other end of the age spectrum, abdominal aortic aneurysm screening can also be beneficial. The aorta is the main blood vessel in the body, running from the heart through the chest and abdomen. In some people the wall of the aorta in the abdomen weakens as they become older and the vessel starts to expand – this is an aneurysm, a condition that seldom gives rise to symptoms and is most common in men aged 65 and over. Large aneurysms can eventually rupture and leak without warning, often causing death.[8]

This evidence concerning the frequency of aneurysms in older men can be used as the basis for introducing a screening programme. In the UK, for example, men (but not women) as they turn 65 are being offered a screening ultrasound scan. The scans can show the large aneurysms so that these men can receive specialist advice and treatment, usually surgery. Men with smaller aneurysms are monitored by further scans, and those whose aorta is not enlarged need not be screened again. The quality of the screening and the surgery is crucially important. Aneurysm surgery is a major procedure and if complication rates are high then more men would be harmed than helped.

Breast cancer screening: well established but remains contentious

Since routine breast screening with mammography is well established in many countries one could well assume that