Public health screening

Figure 1.1  Newborn screening process (72 hours).

Public Health England (PHE) is an operationally autonomous executive agency of the Department of Health. The prime role of PHE is to reduce health inequality and protect and improve the health and well-being of the nation’s individuals. The National Health Service (NHS) national population screening programmes are developed and implemented on the advice given by the National Screening Committee (NSC) in the United Kingdom (UK). The NSC provides evidence-based recommendations to government ministers in all four UK countries.

PHE supports its activities by drawing evidence from world class research and by promoting advocacy and collaborative partnerships, all of which assist the delivery of specialist public...
health services. It is also in close liaison with the Screening Quality Assurance Service who, by investigating whether national standards are met, can verify if screening programmes are safe and effective. In relation to the NHS Newborn and Infant Physical Examination (NIPE) Screening Programme, both the NIPE Handbook 2016/2017 and the NIPE Screening Programme Standards 2016/2017 were published to inform and support best clinical practice. These texts will subsequently be updated and amended to reflect the available evidence and therefore it is important that practitioners refer to the latest edition. It is also important that the Service specification 2016/2017 (No. 21) (Public Health England, 2016a) is also referred to in the same manner.

Screening is not diagnostic

Population screening is a way of identifying healthy people who may be at increased risk of a disease or condition. When an individual is highlighted as being at a higher risk of developing the disease or condition in question, then they can receive further information, investigations or treatment. The provision of screening aims to reduce the risks or complications associated with a disease or condition.

Screening is not a diagnostic process. Without further investigation, a screening process cannot usually provide confirmation that an individual has a specific disease or condition. However, newborn blood spot screening does merge these two processes, as screening is offered for all babies so there will be some babies in whom a specific condition is confirmed and so subsequent treatment and management of the condition can be offered.

In relation to NIPE, there are four main screening elements that are assessed: eyes, heart, hips and testes. This is not because examining the baby for other conditions is not important (including a full top-to-toe), but because these four elements can be systematically measured and therefore, standards relating to good practice and timescales can be set accordingly.

NIPE policy

The NSC requires that all eligible babies should be offered the NIPE within 72 hours of birth (Figure 1.1). A second NIPE is offered again at 6–8 weeks of age by the family’s general practitioner (GP). However, it is the responsibility of the birth unit to identify all eligible babies (including those who move into the area), which will continue until the 72-hour NIPE is completed or responsibility for this is transferred to another acute care provider. The responsibility for following up on referrals after the 6-week examination rests with the GP, who should check the care pathway for progression in relation to referrals or results of action taken.

The main aim of the NIPE programme is to detect any congenital abnormalities of the eyes, heart, hips and testes, where these are detectable within the first 72 hours after birth. The examination at 6–8 weeks provides a second opportunity to detect these abnormalities at the end of the neonatal period. The ending of the neonatal period is when most of the physiological changes that occur after birth have been completed. Most babies will have made the transition from fetal to neonatal life and conditions arising after this time will not necessarily be congenital in origin. However, if an abnormality is undetected or masked by another condition or illness, then it may still be first recognised because of parental concern or because the baby exhibits signs and symptoms of the condition. It is a salient point to note that parental concerns should be taken seriously – they know their child and changes in behaviour or ability will often be clear to them.

Parental information

All parents should be given information relating to the NIPE, in terms of what it is, why it is offered and when it is performed and by whom. During the antenatal period and before the NIPE is conducted, a leaflet and discussion should take place, so that questions can be answered and to give the parents time to think about any family history that the practitioner may not be aware of.

Verbal consent should be obtained from the parents prior to conducting the examination. During the examination, the inability of the baby should be mentioned and any concerns that the parents have should be addressed. The findings of the examination should be discussed with them prior to completing a comprehensive record (see Chapter 3). They should also be informed who to contact if they have concerns about their baby’s health and that the second main examination for their baby will be when he/she is 6–8 weeks of age when any queries remaining from the 72-hour NIPE should be addressed. For example, the baby may have had unilateral undescended testes at the 72-hour examination and the parents will need to know if this has now resolved. The documentation should reflect the fact that previous findings have been noted, the findings of the 6–8 week examination plus any further actions that may be required.

Key considerations

NIPE recommends that the 72-hour examination should be undertaken for all babies prior to discharge home. This maximises the likelihood that the examination will be completed in a timely manner. It is also advantageous to the parents, as some will not want to return to the hospital after being discharged home. There will also be some who will choose not to return and not to take part in screening when they are no longer in an environment where it is easily accessed.

If an examination must be performed early in neonatal life when auscultating for heart murmurs is more likely, it is preferential to do so rather than the examination not be conducted and therefore at risk of a heart murmur being missed. As with a baby of any point in the first 72-hours, there is always the possibility of hearing a heart murmur and therefore the information given in relation to signs of ill health is no less or more important for one baby during this time, than any other.

If a baby has been admitted to a neonatal intensive care unit (NICU) or special care baby unit (SCBU), then all practitioners in contact with the baby should ensure that the key elements of the NIPE are assessed when practicable to do so. If a baby has been discharged home from NICU or SCBU, then practitioners in the community such as the midwife, health visitor or GP need to investigate if the NIPE has been comprehensively completed, as sometimes this can be missed.

As with any programme, the completion of its component parts is paramount and NIPE SMART will assist in highlighting errors or omissions. However, the process of completion will still only be as good as the attention to detail of the professionals involved.