Health Visitor’s role of the physician examination of the 6-8 week event

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Abstract

Child health surveillance has always been an integral part of the health visitor’s role. More recently there have been moves to incorporate the six-eight week physical examination into health visitors’ workload. Changes to contracts and funding arrangements means that some children are being denied this aspect of care. The early detection of congenital cataracts, congenital heart disease (CHD), developmental dysplasia of the hips (DDH) and cryptorchidism will ensure early treatment is instigated. With appropriate training and support, health visitors are finding themselves in a key position to take this additional aspect of child health surveillance.

Key words: Health Visitor; Physical examination; Infant screening; holistic family-centred care.

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Introduction

Health professionals such as health visitors, general practitioners and midwives are the common first point of contact for families during pregnancy and the first year of life (DH, 2004). The Standards and Competencies for the Newborn and 6-8 week Physical Examination (National Screening Committee (NSC), 2008) agree that the importance of offering and delivering high quality routine care for all infants up to the age of eight weeks is crucial for the detection of those less obvious adverse conditions and abnormalities. In a review of the role of the Health Visitor (HV), Lowe, (2007) recommends that the HV should be leading and delivering the Child Health Promotion Programme using a family focussed public health approach. Many HV would argue that this is already embedded in their role. However, undertaking the 6-8 week examination is not generally practiced, but with appropriate training could be incorporated into their workload.

Whilst there is no general consensus of when the newborn infant should be screened for abnormalities, it is suggested that within 24 hours of birth is universally accepted practice and certainly within 72 hours (DH, 2004, Hall and Elliman, 2006, NICE, 2006). Biochemical bloodspot screening for phenylketonuria, hypothyroidism, sickle cell disease and cystic fibrosis is an effective element of screening and is an important aspect of public health that the HV is involved in (Elliman, Bedford & Hugman, 2004, Hargreaves, et al 2006).

It is well recognised that the aim of clinical examination at birth and again at 6-8 weeks is to specifically detect defects in hips, cardiac abnormalities, ocular disorders and undescended testes (DH, 2004, NICE, 2006, NSC, 2008) and it has always been regarded as sound practice for a full physical examination to be performed in the early post-natal period. This was traditionally the role of
the junior doctor but since the reduction in junior doctors’ hours came into effect (NHS 1991) it paved the way for health visitors and midwives to undertake further roles. Midwives are currently successfully performing this examination of the newborn baby in the hospital and community settings (Lumsden, 2005). A second full physical examination occurs between six – eight weeks by the community paediatrician or General Practitioner (GP). However, Augustine (2005) argues that some GPs are opting out of some service provision in this area and this adds pressure onto the under-resourced community paediatrician. The NMC (2004) state that, a key responsibility of the Specialist Community Public Health Nurse (SCPHN (HV)) is the screening of individuals and populations. Therefore this puts the HV in a prime position to encompass this 6-8 week examination of the infant into their role, this is supported by NICE guidelines (2006), which outline the importance of the coordinating health professional.

Nurse-led examination of newborn infant

Walsh (2000) argues that for this expansion of any nurses’ role to be considered the following conditions must apply: client care will be enhanced; existing care is not compromised; limits of practice are acknowledged; competence is maintained and accountability for practice is borne. Walsh (2000) also states that an important point to consider is in whose interests are being served by taking on a new role and practitioners are challenged to reflect upon the fact that if it is only doctors that would benefit, then it is not an adequate reason. Clearly care needs to be taken in order to prevent existing care becoming compromised. Michaelides (1997) also suggested that for midwives there should be interprofessional teamwork to overcome the adversarial view of ‘taking on the baby’ and ‘taking over from the doctor’. This principle can also be applied to HV when increasing their repertoire of skills to include the 6-8 weeks examination. Certainly it can be seen that this expansion of role should not be performed in isolation but should be rooted in holistic specialist community practice. It is crucial therefore that any examination takes place within the holistic care setting and that the examiner is skilled not only in the physical aspect of the examination but is also competent at taking a comprehensive history from the parents. Whilst it is acknowledged that the HV has an ever-increasing workload with expanding caseloads and prescribing responsibilities they are nevertheless in an excellent position to embrace the concept of the 6-8 week exam. Hargreaves et al (2006) conclude that the HV has an important role to play along the screening pathway particularly in supporting parents at times of uncertainty or on hearing bad news about their baby’s screening result.

Physical examination encompasses the observation techniques of inspection, palpation and auscultation. It should be noted that it is important for nursing practice to concentrate on the ability to recognise ‘normal’ and ‘deviations from normal’ as opposed to the making of specific diagnosis (Rushworth, et al, 1998). This is the essential difference between the use of physical examination skills in the UK and the USA, where nurses perform nursing diagnoses as part of their nursing assessment (Price, Hans & Rutherford, 2000). It has been established that nurse-led services in this area lead to high levels of maternal satisfaction. Two studies have compared the performance of two groups of healthcare professionals and it has been demonstrated that Advanced Neonatal Nurse Practitioners (ANNP) performed the newborn physical examination as well as paediatric senior house officers (SHO) but with increased levels of maternal satisfaction with the ANNP's performing the examination (Lee, Skelton & Skene, 2001). The EMREN (2004) study also had similar findings in that performances were comparable between midwives and SHO/GP but again there was higher maternal satisfaction with midwives performing the examination (Townsend et al, 2004).

Purpose of examination: Key concerns

The aim of the infant examination remains to confirm normality and the purpose of this procedure is also to identify problems that are not always apparent unless this examination is completed. The significance of this full examination cannot be over-emphasised. The main areas of concern to the examiner at six - eight weeks are: - detection of the red retinal reflex (Elliman, Bedford & Hugman, 2004), detection of Developmental Dysplasia of the Hips (DDH) Boere-Boonekamp et al 1998), detection of heart murmurs (Wren, Richmond & Donaldson, 1999) and identification of undescended testes (cryptorchidism) (Hall & Elliman, 2006). However, the steps of the examination need
consideration to ensure all aspects are performed with equal worth.

The retina is well developed at birth and it is stated that the red retinal reflex is present on ophthalmoscopic examination and therefore the eyes should be illuminated with this equipment because failure to visualise the red reflex may be indicative of congenital cataracts or retinoblastoma. See Checking for the red reflex in children. Early detection and referral is essential because surgery can restore vision and prevent blindness from occurring (Fletcher, 1998). The National Screening Committee (NSC, 2008) has suggested the screening for opacities and other eye anomalies is repeated at 6-8 weeks although there are no set standards in the new guidelines (NSC, 2008). Ophthalmoscopy can also identify a fixed squint or nystagmus (Johnson, Flood, Spink, 2007) that will also require ophthalmic opinion.

Developmental Dysplasia of the Hip (DDH) refers to a spectrum of developmental hip disorders, which include partial or complete displacement of the femoral head from the acetabulum (Elliman, Bedford & Hugman, 2004). Hall & Elliman (2006) state that the importance of the hip examination by the HV cannot be overstressed, as early detection is important so that referral for ultrasound scan (USS) can be activated. According to the NSC (2004) DDH occurs in 1.2 live births. If untreated DDH results in limp, and in later life results in pain and osteoarthropathy. Therefore the advantages of an early diagnosis of this condition are well established. This means that there will be shorter, less invasive course of treatment with more favourable results and fewer complications (Alexander & Kuo, 1997, Boere-Boonekamp et al, 1998). Developmental Dysplasia of the Hip is unique among newborn skeletal abnormalities because it requires a physical examination for detection. The Barlow and Ortolani manoeuvres are well-recognised techniques for detecting dislocatable and subluxable hips (NSC, 2004). In addition to these manoeuvres, Galeazzi’s sign can denote hip dislocation/shortened femur and shortened tibia with Tappero (2003) concluding that this aspect of the examination is also crucial in the detection of DDH.

The purpose of the cardiovascular examination is to determine normal heart sounds and identify any abnormal murmurs and not to make a diagnosis but to correctly refer for a specialist opinion. Since the incidence of Congenital Heart Disease (CHD) is 4-8 per 1,000 live births (Monett & Moynihan, 1991) this aspect of the neonatal examination forms an important element of health surveillance. By six weeks, the turbulence in the circulatory system will have ceased unless there is a significant heart problem.

Close observation of the infant should precede auscultation, taking note of the baby’s colour, whether there is any precordial activity, sweating, visible pulsations in the neck (Fletcher, 1998). Murmurs may be an important sign of CHD and may be classified as innocent or abnormal, as well as systolic or diastolic (Monett & Moynihan, 1991). Late murmurs are linked to acyanotic heart lesions such as, Ventricular Septal Defect (VSD), Atrial Septal Defect (ASD) and Hypertrophic Cardiomyopathy (Hall & Elliman, 2006). Those infants with CHD may also present with failure to thrive, tachypnoea, sweating and cyanosis.

Palpation of the femoral pulses is another significant aspect of the cardiovascular assessment. Monett & Moynihan (1991) suggest that pulses are palpated in all four extremities to assess forcefulness and equality. However, it is palpation of the femoral pulses that have the most significance. There are some CHD that present from seven days onwards, namely, coarctation of the aorta and critical aortic stenosis (Blumberg & Gardiner, 2000). Therefore, Vargo (2003) strongly indicates that absent or weak femoral pulses may indicate one of the above, whereas bounding femoral pulses are usually present with patent ductus arteriosus and other aortic-runoff lesions. It is essential therefore those HV who are examining babies within their professional role perfect this skill. A multi-centre study into newborn oxygen saturation levels is currently in progress (Pulseox, 2008, http://www.pulseox.bham.ac.uk/ accessed 23 May 2008) the findings of which could significantly reduce the amount of undetected heart disease at 6-8 weeks. Preliminary results of this study will be available next year.
Cryptorchidism, if untreated can result in malignancy and infertility in adult males. Therefore the most important aspect of the genital examination is the presence or absence of palpable gonads in the labioscrotal folds or scrotum. Descended gonads will always be testes, because ovaries never descend below the inguinal ring (Fletcher, 1998). The male genitalia should be examined to confirm the presence of both testes in the scrotum at six weeks of age (Johnston, Flood, Spinks, 2007). The incidence of cryptorchidism is three per cent in term neonates and up to 20 per cent in babies less than 2500g and six per cent of males have one or both testes undescended (Hall & Elliman, 2006). Approximately, 98% of undescended testes will descend spontaneously by about 6 weeks of age (Thomas & Harvey, 2005). Consequently, undescended testes should be differentiated from retractile testes and referral by the HV for a surgical opinion should be arranged as soon as possible. It is also essential that the position of the urethral meatus should also be noted as hypospadius and epispadius will also require surgical treatment.

Conclusion

The physical examination at six-eight weeks is an essential element of infant surveillance. Deviations from normal can be identified early and acted upon in order that management can be commenced. This will help prevent complications of the conditions occurring as well as reducing mortality and morbidity. The examinations should be performed by a suitably trained and competent healthcare professional who has appropriate levels of ongoing experience (NSC, 2008); indeed it is a skill that needs continuity of practice in order to remain competent.

The role of the HV is currently diversifying and the addition of the six-eight week infant physical examination can be incorporated into the workload provided there is sufficient training and support. Health Visitors are at the cutting edge of screening of the young infant and can perform this additional role within the holistic, family centred care they already achieve.

REFERENCES


