Middlesex University London

Listening to the Newborn
The midwife's contribution

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Communication with the baby

- The baby gives answers to the question we ask every time
- We need to learn to ask the right questions
- Learn to listen to the answers

Knowledge that underpins practice

- The belief that the baby is a person with individual needs
- Feeling that the midwife needs to focus as much on newborn as on mother
- To meet those needs the midwife needs to communicate with the neonate and his parents

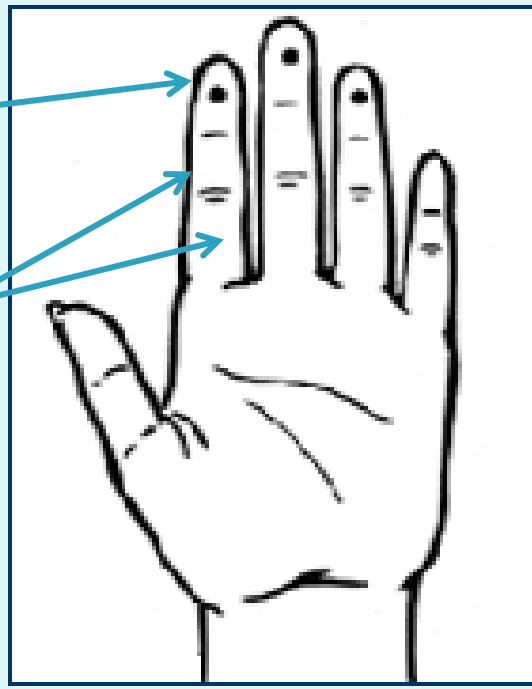
Eyes see what the mind wishes to know

Observation and Palpation

- Finger tips

or

- Finger pads

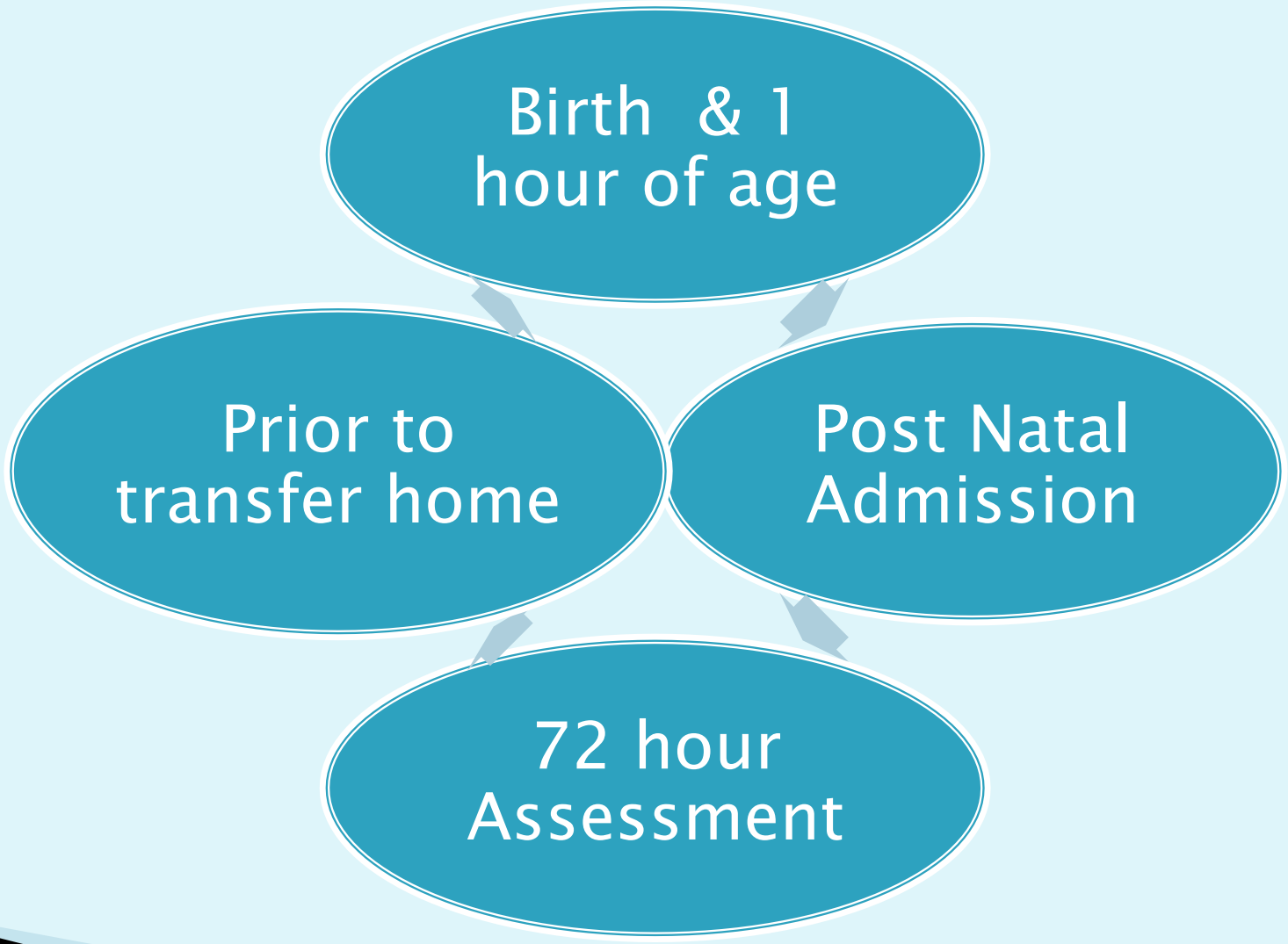


  - Temperature
  - Texture
  - Masses
  - Pulsations
  - Oedema
  - Organ size

Why do we communicate with the newborn baby?

- To validate that physiological changes have occurred in the transition from fetal to independent life.
- Feel confident in the recognition of acceptable variations from the norm.
- Through knowledge and experience of neonatal behavioural, physiological assessment of the newborn be able to Identify the infant who requires special care.
- Respects any concerns the mother/family have about the newborn and attempt to address them

When are the opportunities of one to one communication/examination to take place



Importance of History

- Prerequisite for adequate assessment
- Alerts examiner to potential problems and may indicate the need for more frequent exam
- Gives clues to potential pathology

Check & ASK: *Maternal History*

- Ethnicity
- Siblings/Family
  - neonatal jaundice
  - genetic conditions

Obstetric

- Current pregnancy
  - blood group
  - serology
  - ultrasound scans

- Mother unwell/infection
- Complications such a gestational diabetes or hypertension

- **Labour**
  - Onset/Duration
  - Fetal well being
  - Interventions during labour
  - Maternal temperature
  - Membranes

Birth

- Birth is the most dangerous physiological event in an individual's life
- The majority of babies are normal
- We need to recognise the physiologic changes that take place from the dramatic journey undertaken from a protected uterine environment to independent life.

1958

APGAR	0	1	2	1 min	5 min
Activity (Muscle tone)	Floppy	Some flexion	Well Flexed	2	2
Pulse (HR)	0	<100	>100	2	2
Grimace (reflex irritability)	No respons e	Grimace	Cough or sneeze	2	2
Appearance (Color)	Blue or pale	Pink AC	Pink all over	1	1
Respirations	Absent	Slow, irregular, weak cry	Good, strong cry	2	2
Total				9	9

Birth
Look for

Quick screening for malformations

- Screen from top to bottom, midline, and back examination
- Cutting the Cord
- Designating Gender

  www.dsdfamilies.org– brochure

“Screening” for normality ?

- What is normality ?
- How do you know it when you see it ?
- How confident can you be that you have validated normality?
- It is important to advise parents that certain conditions may only become evident after discharge home.

See – General

- Well or Not Well?
- Skin
  - Pink is normal
  - Acro cyanosis is normal
  - Cyanosis
  - Jaundice
  - Common variants skin rash
    - Erythema toxicum
    - Blue spots

Behaviors – Sleep/Awake

Predictable Behaviors:

1st hour following birth:

- alert, active state; awake, crying, sucking.
- Sleep/awake during day.
- Stability period (6-24 hours)

<u>Sleep States</u>

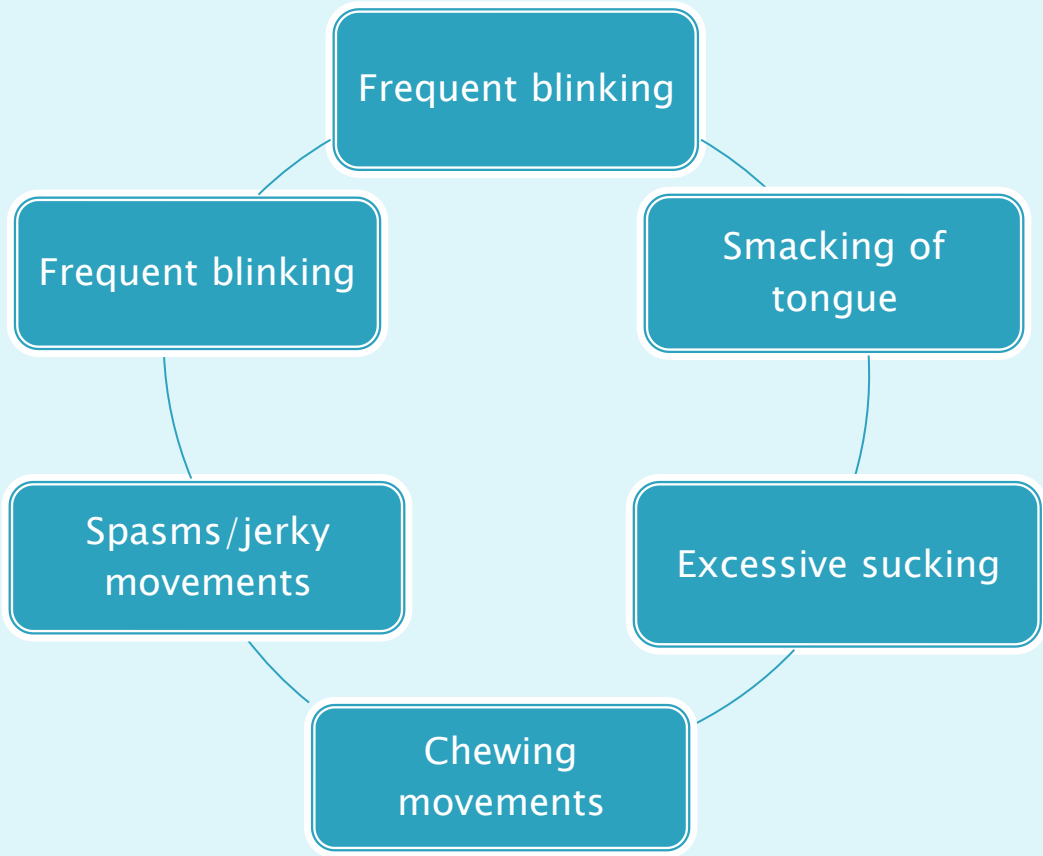
- 1. Deep Sleep
- 2. Light Sleep

<u>Awake States</u>

- Drowsy; Quiet Alert Active Alert; – best time for breast feeding/maternal infant interaction
- Crying

Neurological : See & Feel & Hear

Seizures of early infancy



Hear

- Vigorous cry is assuring
- Weak cry
  - sepsis, asphyxia, metabolic, narcotic use
- Hoarseness
  - Hypocalcemia, airway injury
- High pitch cry
  - CNS causes, kernicterus

FEEL: Temperature Classification by WHO:

- Normal – 36.5 to 37.5˚C
  - Cold Stress 36.0 to 36.4˚C
    - Cause for concern
  - Moderate hypothermia 32 –35.9˚C
    - Danger, warm infant
  - Severe hypothermia Below 32˚C
    - Outlook grave, skilled care urgently needed

Sepsis in the newborn

If you record a temperature of less than 36.5C in a neonate what action do you take and why?

Neonatal sepsis is a major cause of morbidity and mortality

- Hypothermia in the newborn?
  - Exclude abnormality in order to validate normality
- Assess history and physical well being
- Correct environmental issues and allow an hour for the temperature to stabilise to normal level of 36.5C
- Failure to do so the baby must be deemed to be deviating from normal
- Inform parents of your concerns and actions i.e. referral to senior neonatologist for management

Screening

NHS

Screening Programmes

Newborn and Infant Physical Examination

Newborn Pulse Oximetry Screening pilot: Information for healthcare professionals

Background information

Newborn pulse oximetry screening to aid the detection of critical congenital heart defects (CCHD) takes place in many maternity units across England. However, there is currently no national guidance on the use of pulse oximetry as part of the newborn and infant physical examination (NIPE) screening pathway.

A UK National Screening Commitee review concluded that there was value in using pulse oximetry to aid the detection of CCHD. It will support the existing newborn screening programmes for CHD (newborn and infant physical examination and antenatal fetal anomaly ultrasound screening).

The aim of early detection by screening is to reduce mortality and improve long-term outcomes for newborns with a CCHD.

This Trust will be participating in the UK National Screening Commitee Newborn Pulse Oximetry Screening pilot.

Key facts about CHD

- The incidence of CHD is 4 to 10 per 1,000 live births
- A small number of newborns will have a critical congenital heart defect (CCHD)
- Not every newborn with a CCHD will have symptoms
- A small number of newborns will leave hospital with an undiagnosed CCHD. This population group are at greater risk of acute deterioration or death in the following hours or days
- Timely diagnosis and intervention is crucial
- Pulse oximetry as a screening tool can aid the detection of CCHDs in most non-symptomatic newborns but not all

Public Health England is responsible for the NHS Screening Programmes

Traumatic Birth

- Laryngeal nerve damage can cause vocal cord paralysis
  - Hoarse cry, stridor
- Phrenic nerve paralysis
  - Asymmetry of diaphragm
  - Fractured Clavicle
  - Fractured Humerus

Gastro Intestinal assesssment

- Polyhydramnios
- Oesophageal atresia
- Oesophageal fistula
- Volvulus

Gastroschisis –Minimise Harm

- Nurse baby on the right side
- Do not use cling film
- Place baby up to the arm pit into a plastic bag
- May need to insert a NGT

Genitalia and Lower Spine

- **Male**
  - Scrotum
  - Penis
  - Testis
- **Female**
  - Labia majora/minora
  - Clitoris
  - Patent Hymen

Skeletal: Feel and Hear

- Reduce discomfort of examination
- Warmth
- Sucking is essential
  - Reduces pain and stress
  - Satisfying
  - Nourishment
  - May improve brain development
  - May decrease SIDS

Click or Clunk

Increase observation
Keep touching to a minimum

Come to a conclusion

- Commit yourself to form a diagnosis
- You can never be right if you don’t make a diagnosis !
- Document your findings

Do something about it !

- Assess urgency
- Ensure the parents understand your findings
- Make a plan
- Confident and articulate referral
- Follow up on what happens next

Don’t forget the mother

- Confidence/education
- Family support
- Postnatal depression
- Child protection issues

Record Keeping

The date and outcomes of the newborn and the follow up care plan

Baby's clinical notes

- Personal Child Health Record (PCHR)- *the red book*

Take Home Message

- Normality is a diagnosis of exclusion
- Babies (and their mothers) change over time
- False Positives and False Negatives occur
- If you find something – ACT
- If you are uncertain – ASK
- Neonatology is a team discipline – COMMUNICATE

E Learning

- RCM members have access to a huge resource of free online courses through the *RCM's e-learning* platform, i-learn.

- *https://www.**rcm**.org.uk/i-learn-and-i-folio*
  - Examination of the newborn
  - Jaundice

- NIPE E Learning Resource
  - http://cpd.screening.nhs.uk/nipe-elearning

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Thank You

- *s.michaelides.mdx.ac.uk*
- *Please come and see me at the Middlesex University stand in the next break*