Queensland Paediatric Emergency Care

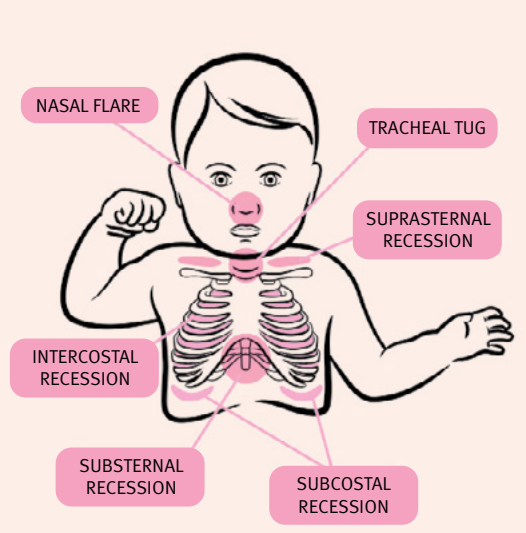
Nursing Skill Sheets

Observations in Infants & Children - Tips

The first set of observations obtained on an infant or child presenting to emergency should be a full set, including temperature and blood pressure. Carry out your observations from least invasive to most invasive. For example, if you try to obtain a blood pressure first and the child becomes upset, the heart rate and respiratory rate may not provide a true reflection of the child's baseline. Your findings will be documented using the Children's Early Warning Tool (CEWT). This tool helps to ensure early recognition of clinical deterioration and provides instructions on the frequency of observations and level of escalation required. Please ensure you read the CHQ Procedure: Use of Children's Early Warning Tool (CEWT).

Respiratory Rate and Work of Breathing

The respiratory rate should be counted for a full 60 seconds and is preferably conducted when the child is sleeping or quietly awake. Observe for work of breathing (mild, moderate or severe) and for accessory muscle use.

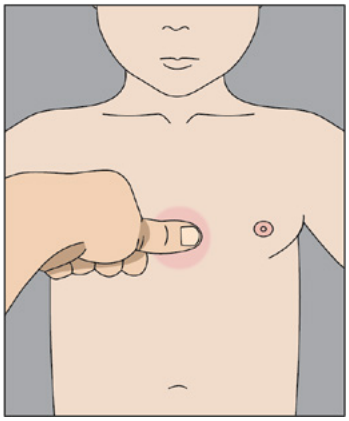


Tips in children

- Under 12 months: When counting an infant's respiratory rate, gently rest your hand over their chest and abdomen.
- Over 12 months: Sit the child in the caregivers lap or have them sit close by to their child in bed for comfort. Ask the caregiver to unbutton or lift their child's shirt to expose the chest enabling you to count from the end of the bed. Some younger children may require a toy or some bubbles to keep them distracted while you count.
- Remove appropriate clothing to visually assess work of breathing.
- Refer to the QPEC Respiratory Observations nursing skill sheet for guidance on classifying mild, moderate and severe work of breathing.

Capillary Refill

Assessment: Using a thumb or two fingers, apply gentle pressure to the skin over the sternum. Hold for 5 seconds, release and count in seconds how long it takes for the blanching to resolve and the skin to return to its original colour.



Temperature

The preferred site of the temperature check varies according to the size of the child:

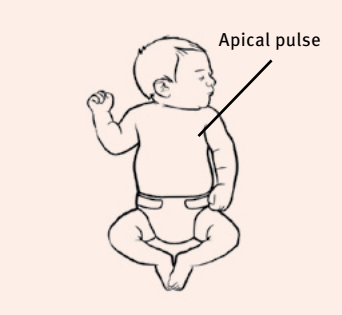
- Under 6 months: Axillary.
- 6 months and above: Tympanic. The temperature probe must fit the ear canal comfortably to ensure accuracy. If in doubt use the axillary site.

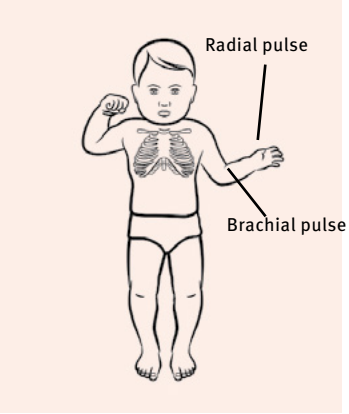
Oral temperatures are not routinely recommended.

Heart Rate

The heart rate should be counted for a full 60 seconds and preferably when the infant or child is not distressed. The preferred site for obtaining a pulse varies according to age group:

- Under 12 months: Auscultate apical pulse rate using a stethoscope.
- Under 2 years: Palpate the brachial pulse.
- Over 2 years: Palpate brachial or radial pulse.





Tips in children

- Auscultate the apical pulse with a stethoscope at the 3rd-4th left intercostal space near the sternum for infants and the 5th left intercostal space for older children. Each "lub-dub" sound counts as one beat.

Oxygen Saturations (SpO2)

There are many different types of oxygen saturation probes. Check the probe you are using to ensure the weight range is appropriate for the size infant or child you are using it on. Adult 'peg' probes are not appropriate for infants. The probe site should be changed hourly in infants and second hourly in young children, due to the risk of pressure injuries.

Sp2 Probe Placement:

- Under 12 months: Probe placement works best on the hand, foot or big toe.
- 1-3 years: Probe placement works best on the big toe and thumb.
- Over 3 years: Probe placement works best on the thumb and fingers. You may also use the ear lobe.

Hand:

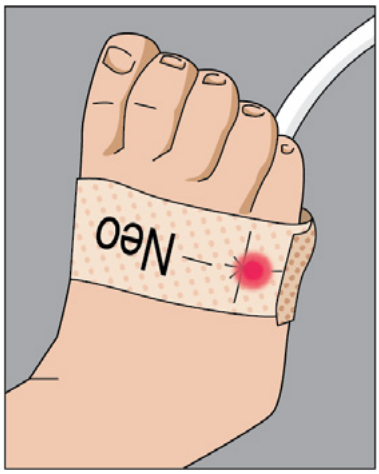
Place emitter on the palm at the base of the little finger with the detector directly opposite on the outer aspect of the hand and secured with a self-adhering foam tape.

Foot:

Place emitter on the foot at the base of the little toe with the detector directly opposite on the outer aspect of the foot and secured with a self-adhering foam tape.

Fingers, thumbs and big toes:

Place emitter on the nail and the detector directly opposite on the pad to the finger.



Tips in children

- Some young children become upset by the Spo2 probe. Here are some ideas to overcome this:
    - Show them the probe is not scary by placing it on their doll/teddy or caregiver. Refer to the probe with child-friendly terms such as 'a fairy light' or 'a Christmas light'.
    - Place the probe on their big toe and cover it with a sock or shoe. Once the probe is covered by a familar item of clothing many children will settle.
- Use distractions such as toys or bubbles to shift their attention away from the probe.
- Always check the probe is in the correct position, secure and the pleth wave is even before accepting the reading you are given on the monitor

Blood Pressure

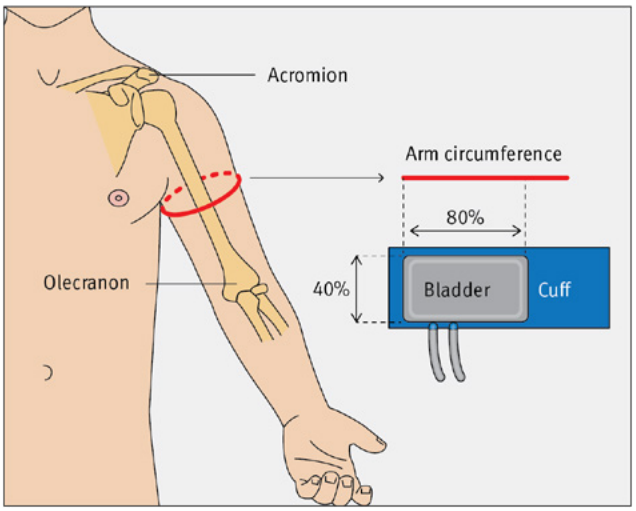
The blood pressure should preferably be obtained when the infant or child is not distressed. The limb should remain still during measurement. The limb should be bare and the infant or child should be seated or supine with the limb at heart level.

The following is a guide to the sites for blood pressure cuff placement.

- Under 12 months: upper arms or calf.
- 1-5 years of age: upper arms or calf (if arms are unavailable).
- Over 5 years: upper arms.

Guide to Picking the Correct Blood Pressure Cuff:

- The cuff should be approximately 40% of the infant or child's arm/leg circumference.
- The cuff bladder length should be 80-100% of the circumference of the arm/leg.



Tips in children

Some infants and young children become upset by the blood pressure cuff especially when it tightens. Here are some ideas to overcome this:

Infants – Ask caregivers to talk and reassure their baby. Use toys and distractions. ttempt while feeding, asleep or calm.

Toddlers – Provide a simple explanation and make it a game. For example, "This is going to give your arm a little squeeze and it will tell us how big your muscles are".

Older children – Provide an explanation and involve the child and their caregiver where possible. You can ask them to help place the cuff on their arm or push the start button.

For further information:

CHQ Nursing Standard: Clinical Assessment of the Paediatric Patient – Rapid Assessment / Primary and Secondary Survey / Vital Signs (QH only)

Nursing Standard: Clinical Observations - Considerations in Children. (QH only)

References:

This Queensland Paediatric Emergency Nursing Skill Sheet was developed by the Emergency Care of Children working group (funded by the Queensland Emergency Department Strategic Advisory Panel) with the help of the following resources:

Children's Health Queensland. (2020, March 26). Clinical Observations – Considerations in Children. Queensland Health Intranet. https://qheps.health.qld.gov.au/__data/assets/pdf_file/0016/724003/ns_00253.pdf

Children's Health Queensland. (2017, June 21). Clinical Assessment of the Paediatric Patient – Rapid Assessment / Primary and Secondary Survey / Vital Signs. Queensland Health Intranet. https://qheps.health.qld.gov.au/__data/assets/pdf_file/0019/724240/ns_00241.pdf

Children's Health Queensland. (2020b, July 16). Pulse Oximetry. Queensland Health Intranet. https://qheps.health.qld.gov.au/__data/assets/pdf_file/0031/723955/ns_10030.pdf

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- Providing care within the context of locally available resources, expertise, and scope of practice.
- Supporting consumer rights and informed decision making in partnership with healthcare practitioners including the right to decline intervention or ongoing management.
- Advising consumers of their choices in an environment that is culturally appropriate and which enables comfortable and confidential discussion. This includes the use of interpreter services where necessary.
- Ensuring informed consent is obtained prior to delivering care.
- Meeting all legislative requirements and professional standards.
- Applying standard precautions, and additional precautions as necessary, when delivering care.
- Documenting all care in accordance with mandatory and local requirements.

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