Queensland Paediatric Emergency Care

Skill Sheets

Respiratory Assessment

Conduct the 'hands off' elements of the assessment first. Allow the child to assume a position of comfort. Ensure that you can fully observe breathing by assessing the child with their shirt off. Caregivers can help the child to expose the chest to enable observation of the following:

- · behaviour, colour, presence of respiratory muscle recession and categorise according to the table below
- respiratory rate
- equal rise and fall of the chest
- audible sounds such as coughing, snuffle, snoring, grunting, wheezing or stridor

Children with stridor should be kept as comfortable as possible. Take special care not to distress the child as this may exacerbate their symptoms.

Continue assessment with the 'hands on' elements:

- Ensure the trachea is centred with no deviation.
- Auscultate the chest.
- Obtain and document a full set of observations including heart rate and oxygen saturations.
- Document your all of you findings and seek assistance as required.

Mild, moderate, severe and life-threatening respiratory features

| | Mild accessory muscle use and ALL of the following: | Moderate accessory muscle use and ANY of the following: | Severe accessory muscle use and ANY of the following: | Life-threatening ANY of the following: |
|------------------|---|---|--|--|
| Behaviour | Alert Speaking in full sentences | Occasional irritability Speaking in phrases | Agitated, restless, distressed Speaking only single words | Drowsy or unconcious Unable to speak due to dyspnoea |
| Posture | Can walk or crawl | Lethargic Tripod sitting | Lethargic Tripod sitting | Collapsed or exhausted |
| Breathing | Mild accessory muscle use | Moderate accessory muscle use | Severe accessory muscle use | Severe accessory muscle use or poor respiratory effort |
| Skin Colour | Normal | Pale | Cyanosis | Cyanosis |
| Respiratory Rate | Normal or mild tachypnoea | Tachypnoea | Tachypnoea | Severe tachyopnoea or bradypnoea or apnoea |
| Heart Rate | Normal or mild tachycardia | Tachycardia | Tachycardia | Cardiac arrhythmia or bradycardia (preterminal sign) |

Normal parameters by age

| Age | € < 1 year | 1-4 years | 5-11 years | ♦ > 12 years |
|---|------------|-----------|------------|--------------|
| Respiratory rate (RR) (breaths/minute) | 21-45 | 16-35 | 16-30 | 16-25 |
| Heart rate (HR) (beats/minute) | 100-159 | 90-139 | 80-129 | 60-119 |





Chest Auscultation

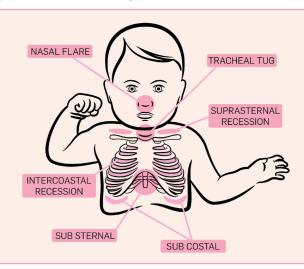
- Where possible, it is beneficial to wait for a time when the infant or child is not crying to ensure subtle sounds are not missed.
- For younger children, it may be helpful to first let them play with your stethoscope. Consider involving the child's toys in the assessment process. This will build rapport and encourage cooperation.
- Auscultate whilst child is sitting up (where developmentally able). They may prefer to sit on their caregiver's lap.
- Auscultate the front and back of the chest. Compare right to left in a 'Z' pattern.



ALERT

A 'silent chest' is a medical emergency. Seek immediate medical attention. A silent chest is suggestive of little to no gas exchange and is an indication that respiratory failure is imminent.

Accessory muscle anatomy



Other signs of respiratory distress

- Head bobbing (infants)
- Tripod positioning
- · Paradoxical abdominal breathing
- Flat affect
- Absence of crying
- Grunting

When to escalate care



Urgently seek medical advice in the child with signs of severe or life-threatening respiratory distress.



Seek prompt senior nursing/medical advice in a child with moderate respiratory distress or worsening symptoms.

For further information:

SWiM Video: Respiratory Assessment

Skill Sheet: Bronchiolitis

Skill Sheet: Croup

Skill Sheet: Pre-School Wheeze

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:

Children's Health Queensland Hospital and Health Service. (2019b, September 26). Asthma - Emergency management in children. https://www.childrens.health.qld.gov.au/guideline-asthma-emergency-management-in-children/

Children's Health Queensland Hospital and Health Service. (2019, September 26). Bronchiolitis - Emergency management in children. https://www.childrens.health.qld.gov.au/guideline-bronchiolitis-emergency-management-in-children/

Children's Health Queensland Hospital and Health Service . (2019, September 26). Pre-school Wheeze - Emergency management in children. https://www.childrens.health.qld.gov.au/guideline-preschool-wheeze-emergency-management-in-children/

Hockenberry, M.W., D., Wong's nursing care of infants and children. 10th ed. 2015, Canada: Elsevier.

Queensland Health Statewide ED Nurse Educator Committee, Pearson, N., Cole, T., & Carney, S. (Eds.). (2016). Unit 5 Respiratory. In Queensland Health: Transition Support Program - Emergency. Module 3 - Paediatric Care in the Emergency Department (4th ed., pp. 68–78). State of Queensland (Queensland Health).

This Queensland Paediatric Emergency Skill Sheet was developed and revised by the Emergency Care of Children working group Initial work was funded by the Queensland Emergency Department Strategic Advisory Panel.

Skill Sheet Legal Disclaimer

The information contained in these Queensland Paediatric Emergency Care skill sheets is for information purposes only. It was developed to inform emergency nursing care, but can also be applied by other clinicians acting within their scope of practice. The information has been prepared using a multidisciplinary approach with reference to the best information and evidence available at the time of preparation. No representation, warranty or assurance is given that the information is entirely complete, current, or accurate in every respect. The skill sheets are not a substitute for clinical judgement, knowledge and expertise, or medical advice. Variation from the skill sheets, taking into account individual circumstances may be appropriate. This does not address all elements of standard practice and accepts that individual clinicians are responsible for the following:

- 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.

Children's Health Queensland disclaims, to the maximum extent permitted by law, all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages and costs incurred for any reason associated with the use of this skill sheet, including the materials within or referred to throughout this document being in any way inaccurate, out of context, incomplete or unavailable.



