



**North Thames  
Paediatric Network**  
Connecting paediatric services



## Acute infant CPAP competency for nursing staff

North Thames Paediatric Network & East of England Paediatric Critical Care Network  
Knowledge & Skills Competency document  
To be used in conjunction with the clinical guideline

Name:

Unit:

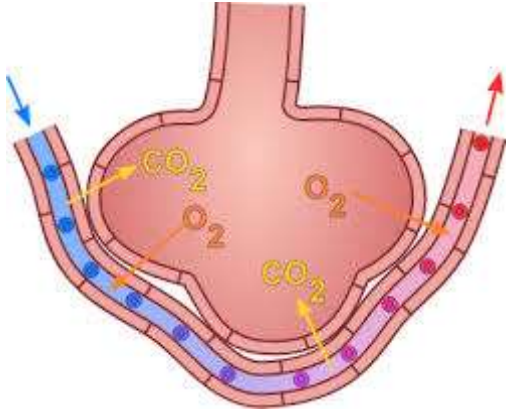
Date commenced:

Date returned:

Added to local training database [ ]

Has completed local equipment competency [ ]

Supervisors Name	Role	Sample signature	Sample initials

Knowledge	Date & Sign staff	Date & sign supervisor
Describe the elements of normal respiration		
Describe the basic principle of gaseous exchange as shown in this diagram. 		
What might impede efficient gaseous exchange?		

What does Poiseuille's law tell us about the relationship between airway resistance and the diameter of the airway?

Why is this significant?

Describe the mechanism of CPAP and its physiological effect.

Define the following terms and discuss their relevance :

FRC

PEEP

CPAP

Flow

FiO2		
Explain the two types of respiratory failure?		
What children are at greater risk of respiratory failure?		
How would you prepare a bed space for a CPAP patient? What would you consider?		

Discuss the options for optimising the patient's condition prior to starting CPAP		
What are the clinical indications for starting a child on CPAP?		
What are the contraindications for CPAP?		
Describe the potential complications associated with CPAP therapy and suggest ways to avoid them		
Identify the interface in use in your own trust and demonstrate how to measure and select the correct interface and fixation device, competently attaches to the patient.		

What observations should be documented for a child on CPAP? Give the rationale.		
What is the rationale for clustering personal / hygiene cares for babies on CPAP?		
Describe the benefit of humidification of inspiratory gases for the baby on CPAP		
How would you ensure a child on CPAP is adequately hydrated?		
When would it be suitable to initiate feeds for a child on CPAP, what would you consider when starting feeds?		
What strategies could you use to comfort the child on CPAP, why is it important to consider this?		

Why should sedation be used with caution?		
Discuss the rationale for clustering the personal / hygiene cares for a child on CPAP		
What would you need to consider when undertaking an internal transfer of a child on CPAP		
How would you identify and trouble shoot the following?  Low CPAP pressure / loss of PEEP  Condensation / rain out in the circuit.  High pressure level		

<p>Discuss the clinical features that would indicate that a child is responding to the CPAP?</p>		
<p>Discuss the clinical features/red flags that would indicate that a child's condition is not responding to CPAP</p> <p>How would you manage the deteriorating child and escalate your concerns?</p>		
<p>Discuss what you would consider and how you would manage the patient for whom CPAP is the ceiling of care.</p>		
<p>Discuss the needs of a family whose child is unwell, requiring CPAP, and manage their expectations of the therapy.</p>		