

Resuscitation Council UK: Statement on the application of Newborn Life Support (NLS) vs Paediatric Life Support (PLS) Guidelines

It is frequently asked whether there is a specific age or circumstance where a provider should transition from Newborn Life Support to Paediatric Life Support algorithms. A summary of recommendations on which algorithm to use is shown in Table 1, with the rationale and some guiding principles explained in this document.

Table 1: Recommended resuscitation algorithm by location		
Location	Algorithm	Comment
Labour ward	NLS	
Standalone midwifery-led unit	NLS	
Out-of-hospital birth	NLS	
Neonatal unit (NICU, LNU or SCU)	NLS	
Emergency Department	PLS or NLS	Deliveries or newly delivered babies (< 24 hours old) coming into the emergency department. Dependent on staff familiarity with algorithms.
Paediatric Intensive Care	PLS	
Paediatric ward	PLS	
Specialist Neonatal Transport Service	NLS	
Mixed paediatric/neonatal transport service	PLS or NLS	Dependent on staff familiarity with algorithms.
<p>NLS: Newborn Life Support PLS: Paediatric Life Support These are recommendations, and there should be a clear local resuscitation policy.</p>		

The NLS guidelines are primarily intended for managing the thermal care, assessment, stabilisation and, if necessary, resuscitation of the newborn infant. They are also used pragmatically in resuscitation situations in neonatal clinical settings such as neonatal units (NICUs, LNUs and SCUs) and sometimes hospital postnatal wards. This is because from a safety perspective it is probably better for staff to learn and be familiar with one algorithm; this applies to midwives, neonatal nursing and neonatal medical staff. Clinical staff regularly attending deliveries should be supported to achieve and maintain NLS accreditation.

Newborn babies in an out-of-hospital setting (including stand-alone midwifery-led units) who require thermal care, assessment, and stabilisation or resuscitation should receive care using NLS principles.

The NLS algorithm has a focus on thermal care, managing the airway and breathing which is reflected in the CPR ratio of 3 compressions to 1 ventilation.

When a baby has gone home (> 24 hours old) and then comes back to an Emergency Department or requires resuscitation on a paediatric ward or paediatric intensive care unit ideally the PLS algorithm should be followed.

The choice of resuscitation algorithm can be less clear when a neonate has gone home and then comes back to an Emergency Department requiring resuscitation; when the NLS or paediatric resuscitation team may be called to assist, the following pragmatic factors should be considered:

- ✓ When deciding between a neonatal or paediatric algorithm, the most effective one is likely to be the one that the clinical team managing the neonate are most familiar with.
- ✓ The whole clinical team should follow the same algorithm, including those who join later in the resuscitation.

The same pragmatic principles apply where a baby is being transported between locations, and additional factors such as enhanced thermal care and transport-related safety issues should be considered. Mixed neonatal and paediatric transport services could use NLS or PLS algorithms depending on the age and or size of the baby; term babies over 24 hours of age should usually be resuscitated using the PLS algorithm unless attended by neonatal staff. In mixed transport teams it may be wise to pre-plan which algorithm would be used in an emergency.

Staff in combined neonatal and paediatric intensive care units or transport services should receive both neonatal and paediatric life support training. This will allow them to make an informed choice of which algorithm to deploy based on the specific circumstance.

There is no legal implication around algorithm choice and resuscitation provided if the team involved can demonstrate the rationale for the chosen algorithm and demonstrate that they followed it accurately and effectively. However, providers should know what the local resuscitation policy is across all age groups in their clinical area.

All resuscitation events must be appropriately documented.

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