

Paediatric Pearls

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Previous editions are all available at www.paediatricpearls.co.uk

The process used to produce the **Resuscitation Council (UK) Guidelines 2015** has been accredited by the National Institute for Health and Care Excellence. We should all now be using the 2015 updated guidelines for neonatal and paediatric resuscitation. I have put the changes since 2010 below. The full guidelines are at <https://www.resus.org.uk/resuscitation-guidelines/paediatric-advanced-life-support/> and <https://www.resus.org.uk/resuscitation-guidelines/paediatric-basic-life-support/> and <https://www.resus.org.uk/resuscitation-guidelines/resuscitation-and-support-of-transition-of-babies-at-birth/>.

Changes in Basic Paediatric Life Support (2015)

- ◆ The duration of delivering a breath is about 1 second, to coincide with adult practice.
- ◆ For chest compressions, the lower sternum should be depressed by at least one third the anterior-posterior diameter of the chest, or by 4 cm for the infant and 5 cm for the child.

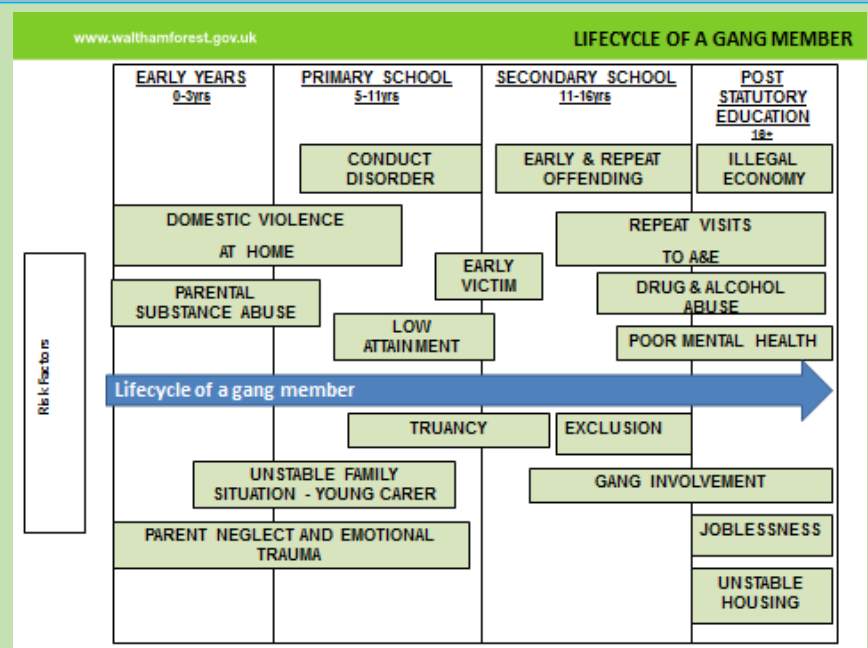
A3 and A4 posters of neonatal and paediatric resuscitation algorithms available for downloading/printing at <https://www.resus.org.uk/resuscitation-guidelines/>

Changes in Advanced Paediatric Life Support (2015)

- ◆ If there are no signs of septic shock, children with a febrile illness should receive fluid with caution followed by reassessment. In some forms of septic shock, restricted fluid therapy with isotonic crystalloid may be more beneficial than the liberal use of fluids.
- ◆ For cardioversion of SVT, the initial dose has been revised to 1 J kg⁻¹.
- ◆ Prevent fever in children who have return of spontaneous circulation (ROSC) from an out-of-hospital cardiac arrest.
- ◆ Targeted temperature management of children post-ROSC should comprise treatment with either normothermia or mild hypothermia.

I have an interest in **international paediatrics** and am involved in facilitating a Newborn Care Course for health care professionals in Cameroon and in training local instructors. Read more about it (and donate money if you wish) at <https://www.justgiving.com/crowdfunding/julia-thomson-Cameroonian-instructors-project>

<https://globalhealthmedia.org/videos/smallbaby/> have uploaded some new videos on caring for the small baby in resource-poor areas of the world. There are 2 fantastic ones for new mothers on cup feeding and expressing colostrum, the first breastmilk. They are as applicable to the UK as to the Indian subcontinent and Africa where they were filmed.



Typical signs that someone may be involved in a gang:

- Frequent ED attendances following injuries such as hand and wrist injuries, stab wounds, facial and head injuries.
- Carrying two phones. (one modern phone, one older phone where data can be easily erased)
- Big groups of mainly boys asking for the whereabouts of patients admitted with injuries.
- Brought in by police/unsociable hours
- Acid attacks (latest trend in Newham)

With thanks to Laura Hudson for this month and last month's safeguarding text boxes on gangs. More information at <https://www.walthamforest.gov.uk/enough-is-enough>

URINALYSIS – WHAT EACH COMPONENT MEANS...

Component	1.000	1.005	1.010	1.015	1.020	1.025	1.030
Specific Gravity	1.000	1.005	1.010	1.015	1.020	1.025	1.030
pH	5.0	6.0	6.5	7.0	8.0	9.0	
Leucocytes	neg.	ca. 15	ca. 75	ca. 125	ca. 500	ca. 250	ca. 250
Blood/Hemoglobin/Sang(re)ue/Hemoglobina	neg.	ca. 5-10	ca. 10	ca. 25	ca. 25	ca. 50	ca. 50
Nitrite/Nitrito/Nitritos	neg.		+	++	+++		
Ketones/Cetónicos	neg.	5 (0.5)	15 (1.5)	50 (5)	150 (15)		
Bilirubin/Bilirrubina/	neg.		+	++	+++		
Urobilinogen(o)/Urobilinogenio	normal	1 (17)	4 (70)	8 (140)	12 (200)		
Protein/Proteinas/Proteinas	neg.	15 (0.15)	30 (0.3)	100 (1)	300 (3)	1000 (10)	
Glucose/Glucosa/Glucose	normal	100 (5.5)	300 (17)	1000 (55)			

www.lifeinthefastlane.com has a great article describing the components of the humble urine dipstick and what we might learn from it. It is available [here](#) and I am going to borrow extensively from Dr Mike Cadogan's work over the next few months but try to put a paediatric slant on it.

- 1) **SPECIFIC GRAVITY (SG)** - measures concentration of urine. Normal range varies by lab but roughly 1.005 to 1.030. < 1.005 – diabetes insipidus, fluid overload, pyelonephritis. > 1.030 – dehydration, glycosuria, SIADH. Falsely high in proteinuria, falsely low in alkaline urine.

- ▶ Remember to wait for 60 seconds before reading the dipstick
- ▶ If using an automated dipstick reader, ensure it is clean before use
- ▶ Whilst SG does go up in a dehydrated child, it has poor specificity on its own as a marker for dehydration. Better indicators at <http://www.fnotebook.com/peds/FEN/PdtrcDhydrtn.htm>
- ▶ Information for parents on collecting and testing urine available [here](#).