Guns, Gels, Drills, & Kings

Pediatric IO Access & Alternate Airway Management

Scott DeBoer RN,MSN,CEN,CPEN,CCRN,CFRN,EMT-P
Pediatric Emergency/Transport Nurse Educator
Founder: Pedi-Ed-Trics Emergency Medical Solutions
Scott@PediEd.com

- Intraosseous (IO) access

- Why?
- Why not?
- How long between "sticking the same bone"?
- Where?
 - Proximal tibia
 - Distal tibia
 - Distal femur
 - Humerus
 - Sternum (only adults)
- Age?
- Which meds?
- Complications?
- How long can you leave an IO in?
- Types of IO toys
 - Jamshidi & Cook "twist & pop"
 - Bone injection gun (BIG) "bone gun" and NIO "new IO"
 - SAM IO "SAM IO"
 - BD IO "rechargeable with safety needles IO"
 - EZ-IO "bone drill"
 - FAST (civilian/military) & TALON (only military) "sternal IOs"

- Alternate airway management

- Bagging vs. backup/alternate airways
- Bagging vs. intubation & kids
- -King airways
 - What size for what size kid?
 - How much air to inflate with?
 - Gastric access
- Laryngeal mask airways (LMA's)
 - What size for what size kid?
 - How much air to inflate with?
 - Gastric access
- i-gels
 - What size for what size kid?
 - Gastric access
- Verification of placement with EtCO2?
- Attach to a ventilator?
- How long can you leave them in?
- ABCDE of pediatric cardiac arrest (Handtevy style)

References for Products Discussed

Intraosseous access (Jamshidi, Cook, NIO/Bone Injection Gun, BD IO, & EZ-IO)

www.cookmedical.com www.boundtree.com www.ps-med.com www.bd.com www.sammedical.com www.teleflex.com

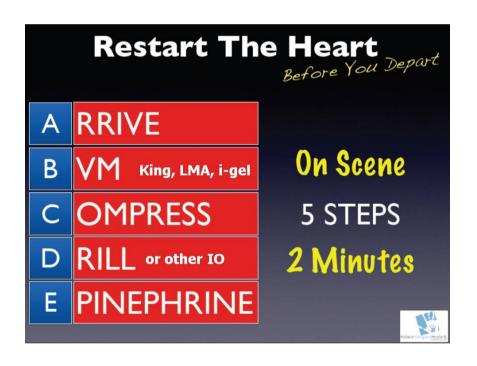
Non-visualized airways (King airways, laryngeal mask airways, & i-gels) www.ambuusa.com www.teleflex.com

www.intersurgical.com

"My kingdom for an intravenous line..."

J. Orlowski MD

"Given the precedent of the American Society of Anesthesiologists, failure to confirm airway placement with $EtCO_2$ monitoring invites litigation" J. Falk MD



KING/LARYNGEAL TUBE AIRWAYS					
	King	Weight/ Length	Ways to Remember		
Peds	0	< 5 kg	0 for a 0-year-old		
	1	5–12 kg	1 for a 1-year-old		
	2	12-25 kg	2 for a 2-year-old		
	2.5	25-35 kg	2.5 for 25 kg		
Big People	3	4–5 feet	Bigger than Broselow 3		
	4	5–6 feet	4 for just about all adults		
	5	> 6 feet	5 if bigger than a backboard		

LARYNGEAL MASK AIRWAYS & i-gel's					
	AuraGain	Weight	Ways to Remember		
Peds	1	< 5 kg	1 for 1 hour old		
	1.5	5–10 kg	$1\frac{1}{2}$ for up to $1\frac{1}{2}$ years old		
	2	10-20 kg	2 years old to 20 kg		
	2.5	20-30 kg	2.5 for 25 kg		
Big People	3	30-50 kg	Bigger than Broselow 3		
	4	50-70 kg	4 (for) just about all adults		
	5	70–100 kg	5 if bigger than a backboard		