



Session		Time Allocated	Student Profile	Number Of Students	Tutor
Paediatric Medication Calculation		30 minutes	Qualified PHECC Registered Advanced Paramedics	6	Advanced Paramedic Tutor
Equipment: 1 x 400mcg/1ml Naloxone ampoule. 2 x 100mg Hydrocortisone powered vials. 1 x 10mg/2ml Midazolom ampoule. 1 x 50mg/5ml Midazolom (Epistatus) – empty container + 1ml syringe non luer lock. 1 x 5ml syringe. 1 x 10ml saline ampoule. 2 x 100ml NaCl infusion sets. 1 filter needle. 2 x 1ml syringes with luer locks. 2 x 3ml syringes. 1 x 50ml syringe. 2 x 23g needles.					
Overall Objective: T.T.S.S.B.A.T:					
Motivation:					
No	Sub - Objective	Time	Tutor Activity	Student Activity	
SO 1	T.T.S.S.B.A.T Calculate dose for 4yr old requiring naloxone	18 min	Draw up 400mcg/1ml of naloxone into a 1ml syringe and withdraw required dose, using a 3 way tap, into a second 1ml syringe.		
SO 2	T.T.S.S.B.A.T Calculate the dose of Hydrocortisone required for a 13yr old in severe anaphylaxis.		Reconstitute (100mg Hydrocortisone in 2mls of saline) x 2, and withdraw the required dose for a 13yr old. Add the required dose of hydrocortisone for a 13yr old to a 100ml bag of saline and set the flow rate to deliver over 10 minutes.		
SO 3	T.T.S.S.B.A.T Calculate the dose of Midazolom required, to be administered intranasally, for a 6yr old in status epilepticus.		Using a 2ml syringe, simulate withdrawal of 10mg of Midazolom from ampoule. Using a 3 way tap, withdraw the required dose to the 1ml syringe		

This information is intended to for use as an educational tool during Part1 of the Advanced Paramedic Upskilling Programme to the 3rd

Edition of the PHECC CPG's





SO 4	T.T.S.S.B.A.T Calculate the dose of Midazolom required, to be administered intranasally, for a 9yr old in status epilepticus.		Emphasise that paediatric dosages should never exceed an adult dose of a drug	
SO 5	T.T.S.S.B.A.T Calculate the dose of Midazolom required, to be administered buccally, for a 3yr old in status epilepticus.		Using a 1ml syringe, simulate withdrawal of the required dose of Midazolom (Epistasus) from the container.	
	Summary	2 mins	Summarise and take questions	Ask questions, listen to answers

Notes:

- Calculations:
- Using the Medication Order and the Concentration we can calculate the amount of the drug (usually mg or ml) to administer
- 3 methods
 - Ratio & Proportion method
 - Formula: Concentration x Volume = dose (mg/ml x ml = mg)
 - Formula method:

$$\text{Volume required (ml)} = \frac{\text{dose} \cdot \text{required (mg)} \cdot \text{x} \cdot \text{volume} \cdot \text{in} \cdot \text{ampoule (ml)}}{\text{Dose} \cdot \text{in} \cdot \text{ampoule (mg)}}$$



This information is intended to for use as an educational tool during Part1 of the Advanced Paramedic Upskilling Programme to the 3rd Edition of the PHECC CPG's

