**Paediatric DKA Prescribing Refresher 16/08/19**

**Step 1:** **Estimating percentage of dehydration**

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| --- | --- | --- | --- |
| **Severity DKA** | **Percentage of Dehydration**  | **pH** | **Clinical Signs** |
| Mild to moderate | 5% | >7.1 | Dry mucus membranesReduced skin turgor |
| Severe | 10% | < 7.1 | Sunken eyes |
| Shock |  |  | HypotensionThready rapid pulse  |

**Step 2a: Calculate the maintenance fluid requirement** using the 'reduced volume' rules

|  |  |
| --- | --- |
| **Weight** | **Fluid Rate**  |
| <10kg | 2ml/kg/hour |
| 10-40kg | 1ml/kg/hour |
| >40kg  | 40ml/hr (fixed rate not per kg) |

**Step 2b: Calculate total hourly volume requirement** including plan to replace deficit over 48 hours.

You need to subtract resuscitation fluid given that exceeded 20ml/kg.

*For example if the patient had the maximum 30ml/kg resuscitation fluid they had 10ml/kg exceeding the 20ml/kg cut off so subtract 10ml/kg.*



**Step 3: Potassium replacement**

|  |  |
| --- | --- |
| **Potassium (mmol/l)** | **KCL concentration** |
| <3 | May need > 20mmol in 500ml – Discuss with HDU |
| 3-6 | 20mmol in 500ml |
| >6  | 10mmol in 500ml and repeat, asses urine output ?AKI |

**Step 5: Insulin**

Start soluble insulin at 0.05 - 0.1 units/kg/hr **1 hour after starting IV fluids**

Aim to reduce the blood glucose no faster than 5mmols/hr

**Step 6: Re-asses**

If BM < 14 change to glucose containing fluid

Review pH/ ketones/ BM/ potassium/ renal function/ corrected sodium