

Our paediatric ED department is one of the quietest places in the hospital currently and we are not the only ones worried. This week, the British Paediatric Surveillance Unit (BPSU), launched its reporting tool to track the impact of COVID-19 on child health services. Please click on the link in the poster for a downloadable copy of the RCPCH poster signposting parents of unwell children how to seek help. There is also a local guide for east London available at http://www.paediatricpearls.co.uk/wpcontent/uploads/2020/04/Parent Guide COVID-19-

Final-April-2020.pdf



# BSPED Diabetic Ketoacidosis (DKA) guidance was updated in February 2020. The interim guideline is available here. Our understanding of fluid management is progressing fast and NICE may change it again in 2021....

Here are the main changes, with thanks to Natasha Macleod, Paediatric Advanced Nurse Practitioner at Homerton University Hospital.

DKA: acidosis bicarb <15mmol/l or pH <7.3 and ketonaemia (blood ketones >3.0) Bicarb previously had to be <18mmol/l

16-18 yr olds- treating team should use most familiar guideline i.e. adult team use adult guidelines, if paediatric-led use paediatric guideline

**SEVERITY**: now 3 categories where previously there were 2

Mild DKA: pH 7.2 -7.29 or bicarb <15mmol/l (5% dehydration) Mod DKA: pH 7.1-7.19 or bicarb <10mmol/l (7% dehydration) Severe DKA: pH <7.1 or bicarb <5mmol/l (10% dehydration)

FLUIDS: Emphasis on adequate restoration of circulation and treatment of shock/less fluid restrictive. Max weight 80Kgs should be used.

Shocked patients (APLS def.): 20ml/Kg bolus over 15mins. Reassess and then use boluses of 10ml/kg up to 40ml/Kgs then consider inotropes. DO NOT DEDUCT BOLUSES FOR SHOCK FROM THE FLUID DEFICIT CALCULATIONS Mild/Mod: If IV fluids indicated but NOT SHOCKED then give 10ml/kg bolus over 60 mins. This bolus SHOULD BE DEDUCTED from fluid deficit calculation. Maintenance fluids: use traditional paediatric formula - much less restrictive now Only add potassium if passing urine and serum K<sup>+</sup> is within normal limits.

INSULIN: Range 0.05-0.1 units/kg/hr but: For an excellent summary and explanation Severe DKA use 0.1 unit/kg/hr Under 5s and most other cases

use 0.05 units/kg/hr

of DKA management, see: https://dontforgetthebubbles.com/diabetic-

ketoacidosis/

### Surgical Paediatric Pearls: UNDESCENDED TESTIS (with thanks to Mr D Misra, Consultant Paediatric Surgeon, Barts Health NHS Trust)

3.7% - 5.9% of boys at birth have an undescended testis. More likely in the premature population. This is still the case in 1.5 - 2.4% of boys at 3 months of age and at 1 year so, if it's going to come down on its own, it'll probably do it by 3 months corrected gestational age.

- O Refer all babies with BILATERAL undescended testes to a paediatrician to be seen within 24 hours. There may be a disorder of sexual development and differentiation.
- O Not sure if the 7-week-old baby boy you are assessing has both testes? Obscure the external inguinal ring with one finger to palpate all the way up from scrotum to the inguinal region – it's often in the inguinal canal. 80% of undescended testes are palpable. Can the parent see both testes in the scrotum after a warm bath or when their child is sleeping?
- O Refer boys with an undescended testis to a paediatric surgeon at 6 months of age.
- O Not sure whether a 2 year old's testes have descended? Get him to squat and look from the front they will come down into the scrotum in that position if they can.

NICE Clinical Knowledge Summary on the topic and detailed management pathway at https://cks.nice.org.uk/undescended-testes#!scenario. Updated Feb 2020.

Parent information on background to undescended testes, need for orchidopexy and details about the surgery: https://www.gosh.nhs.uk/conditions-and-treatments/conditions-we-treat/undescended-testicles.

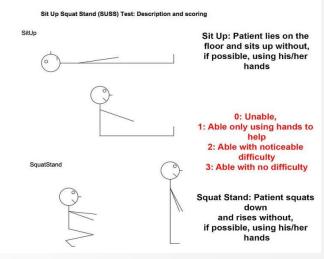
## **LESSONS FROM THE FRONTLINE: Anorexia nervosa**

A 14-year-old dancer was sent by her GP to our outpatient ward for an ECG because of her marked bradycardia. The nurse performing the ECG was concerned that the girl's heart rate was 39 with a prolonged QT interval. A quick SCOFF screen and Sit-Up Squat Stand (SUSS) test later and our patient was admitted to the ward under the care of the multidisciplinary eating disorder team.

## SCOFF Questionnaire: Anorexia

- Do you make yourself Sick because you feel uncomfortably full?
- Do you worry you have lost **C**ontrol over how much you eat?
- Have you recently lost more than **O**ne stone (6kg) in weight over a 3 month period?
- Do you believe yourself to be Fat when others say you are thin?
- Would you say that <u>F</u>ood dominates your life

The SCOFF questionnaire was devised by Morgan et al (BMJ 1999;319:1467) and has 100% sensitivity and 89% specificity for anorexia and bulimia if ≥ 2 of the questions are answered with a "yes". The NICE guideline NG69 (2017): Eating disorders: recognition and treatment states that we should not just use the SCOFF questionnaire.



The Sit Up Squat Stand (SUSS) Test can be used in the ED. An inability to either sit up from lying or get up to standing from squatting without using their hands for leverage suggests severe anorexia.

Dr Ed Dallas, paediatric registrar, looked at the Junior MARSIPAN guidelines and the pathophysiology behind re-feeding syndrome. Click here for his full article. Click here to go straight to the Risk Assessment Framework for young people with eating disorders. High risk group:

	BMI < 0.4th centile	1kg weight loss per week for 2 consecutive weeks	Heart rate < 40bpm
	Dehydration	Temp < 35.5 degrees C	Est. calorie intake 400-600 per day
ı	Excessive exercise	Suicidal ideation	No insight

https://www.rcpsych.ac.uk/mental-health/parents-and-youngpeople/young-people/worries-about-weight-and-eating is a great patient information resource for young people.

Borough-based CAMHS teams normally look after young people up to the age of 18 with eating disorders. Find out more options of where to refer your patients in whom you suspect an eating disorder here: https://helpfinder.beateatingdisorders.org.uk/