

What is Childrens's Diabetic Keto-Acidosis (DKA) Dynamic Insulin Dose?



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Biography

Ahmad Abul Ainine is keen on delivering high quality Diabetes, Endocrine & Obesity care for children in the Digital Era. Using various Automated Digital Programs, he aims at: (i) Promoting better understanding of childhood diabetes, its treatment, teaching and professional training, (ii) Predictive (+corrective) diabetes management by professionals & technically-enabled children's carers. (iii) Child & Family Nutrition & Activity. Designer for Weight Control. (iv) Designers of Pharmacotherapy for treating a critically-ill child with minimal blood testing of drug levels, to optimise benefits and minimise errors, risks & side effects

Background: Lancing children hourly to check blood glucose (BG) is sadly used to tune insulin dose rate in DKA. Insulin dose has many components; like age, body size, blood-sugar, sugar-intake, hydration and stress-levels. Finding insulin-component correlations help estimate total DKA dose. Luckily, DKA is a good opportunity to study insulin dosing in diabetes.

Aim: Finding BG/insulin correlation may help refine DKA management with least pricking, BG excursions and number of insulin dose changes.

Methods: To calculate various components of DKA insulin dose, and their correlations, to find the total insulin dose mathematically and compare with the doses used clinically. Biological variables like age, size, insulin & glycaemia ...etc. will be identified. Pharmaco-kinetic principles would be applied to them. Their mathematical correlations equations will be derived for various ages.

Results: The DKA-components doses we found by regression analysis and added up for total dose. The equations were used in Dynamic DKA software programme. That helps to study quantitative roles of various bio-variables. Live interactive display would illustrate each.

Conclusion: The Dynamic DKA programme uses many bio-variables to instantly find their roles and total dose. Mathi-Medics can unravel the multifactorial diabetes control that may be applied in day-to-day care

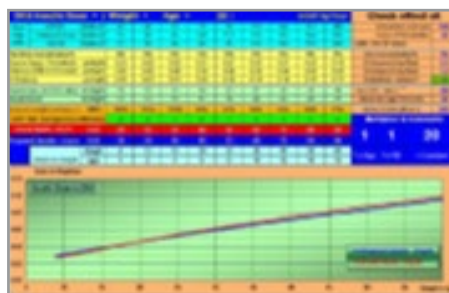
Publications

Intravenous Salbutamol and the British Guidelines

Keep Sugars on Sheets ... To Allow for Play & Sweets ... The Diabetes Auto Manager (DAM) The First Child-Specific Tool

Hypochoic thyroid nodules on ultrasound 4 years after prenatal exposure to radioiodine: Resolution with thyroxine therapy

Toddlers' diabetes: The lost insulin drop and SemiPens vs. DeciPen



Dynamic DKA Dose

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