

AUTHORS' REPLY

We thank the reader for his astute observations of our study findings [1]. Two methods that are commonly used to measure serum β -hydroxybutyrate (BOHB) in the laboratory are colorimetric method and spectrophotometry. Both methods are unavailable in most laboratories due to the prohibitively high cost of estimation and average time range from two to six hours based on the method of estimation, analysis of a number of samples and workforce available in the laboratory. In our study, we used Cayman colorimetric BOHB estimation kits, which had 96 wells (including those for control samples). Hence, samples were stored at -80°C and measured at the end of the study. Thus, real estimation time was not possible using this method. The spectrophotometric method of BOHB estimation is more widely used. It provides quick results (varying from the laboratory to laboratory), and is very accurate [1].

Regarding the concern about BOHB values >5 mmol/L, the total number of samples tested in the study were 236, out of which 42 capillary samples had a BOHB ≥ 5.0 mmol/L. We align with the reader's concern about the utility of BOHB measurement and hyperchloremic metabolic acidosis (HCMA), a potential cause of persistent metabolic acidosis in patients with DKA. As HCMA is a complication seen in a handful of patients towards the latter part of DKA

management, blood gas analysis cannot be completely excluded. However, capillary BOHB can aid in reducing the frequency of blood gas analysis early on during the treatment course as it correlates well with pH, especially when HCMA has not set in. Hence, monitoring of ketonemia (BOHB) is one of the endpoints of diabetic ketoacidosis (DKA), where metabolic acidosis targeted approach might lead to an unnecessary continuation of therapy despite resolution of DKA by that time [3].

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Problems Associated With Some Drug Formulations

Primarily the relationship between medical professionals and pharmaceutical industry is based on the common goal of providing help to the people during illness, and to maintain good health. Patients take a drug prescribed by a doctor because they have full faith in the treating doctor knowing that a doctor would abide by the cardinal principle of medical profession. A doctor prescribes a drug believing that any drug that has been licensed must be safe and approved. Is it a misplaced trust? [1]. The most important point is that drug formulations should be appropriate regarding ingredient(s) and the quantity of ingredients. Unfortunately, many drug formulations do not fulfill criteria to be labeled as appropriate formulations:

Substandard drugs: In case the quantity of any ingredient happens to be less than 90% of the quantity mentioned, it is called substandard drug.

Spurious drugs: In case the ingredient(s) quantity is zero percent it is called spurious drug.

Irrational formations: Clavulanic Acid is approved in combination with Amoxicillin, and Sulbactam for combination with Cefoperazone. Presently many antibiotics in combination with Clavulanic Acid or Sulbactam are available in the market. These formulations add tremendously to the cost of therapy without providing any additional benefit to the patients.

Combination of antagonistic ingredients: Iron and zinc have many similar absorption and transport mechanisms, and may therefore compete for absorption [2,3]. Iron may interfere with absorption of Zinc, when ingested together.

Combination of ingredients having different administration schedules: Many cough and cold formulations have Cetirizine or Levocetirizine, which are to be administered once in 24 hours. Other ingredients in cold or cough formulations are recommended 3 to 4 times in 24 hours.

Potentially harmful combinations: Paracetamol, Ibuprofen and Mefenamic acid are marketed as