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Reply

Dear Editor,

On behalf of the authors, I thank the readers for their keen interest and valuable comments regarding our article. The following comments are submitted herewith in response to the readers:

1. Although there is no indication of the existence of DENV-5 in India, the presence of DENV-5 cannot be ruled out in toto; especially in inaccessible forest canopies where non-human primate hosts are found in abundance and deforestation activities are being resorted to; leading to disturbance in the ecological balance and a possible spillover from the sylvatic to the human cycle.
2. As has been rightly brought out by the readers, the diagnostic tools for DENV-5 are limited and cases of DENV-5 may not be diagnosed even if they occur. The role of health education of the general public and more importantly; the health care workers at the community level using a bottoms up approach cannot be over-emphasised. They play an important role in creation of an information superhighway as far as disease diagnosis, treatment and prevention is considered.

3. Newer diagnostic modalities need to be developed with more stress on serological identification of DENV-5; which, as of now seems to be difficult in a poor resource setting such as ours; with dengue being a disease more of the rural and per-urban areas where such facilities are either poorly developed or may be even non-existent.
4. We agree with the readers that the present day scenario requires surveillance for disease with a high case fatality ratio such as Ebola and other haemorrhagic fevers, SARS, influenza, MERS and other respiratory infection viruses. DENV-5 on the other hand; with the limited data available, is a milder infection.

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Letter to the Editor

Evaluation of management of hypoglycemia in in-patients

Dear Editor,

I read with extreme interest the original article titled “Study of a structured action pathway and persistent monitoring tool among nurses to achieve cent percent management of hypoglycaemia in in-patients: A measure of quality of healthcare” by Mishra et al. published in *Med J Armed Forces India* 2016;72:27–32.¹

The authors have studied an important aspect of in-patient care and intervened to improve the management of in-patient hypoglycemia by a systematic introduction of a protocol to enable the para-medical staff to act in the golden period to minimize morbidity and mortality associated with this dreaded complication of hyperglycemia management. This practical application can be implemented in all hospital settings for improving quality of care.¹

However, the study has many weaknesses, which I would like to highlight:

Data were extracted from hospital records, patient case records, and hospital Quality Flash matrix (QF) in terms of total number of cases receiving insulin and total number of episodes of hypoglycemia documented and reported. Patients on oral hypoglycemic alone were left out, although they form a large subset of in-patients with hypoglycemia.

The data on hypoglycemia have been derived from hospital records retrospectively after a period of time and not in real-time.

The source of data on “actual episodes of hypoglycemia” recorded on QF has not been clarified and it is not clear as to how are these different from “nurse documented hypoglycemia”.

References on incidence of hypoglycemia episodes on insulin therapy and its management are old and are from the times when human insulins, NPH, and lente insulins were

used.² These insulin preparations had a greater propensity to cause hypoglycemia. Newer basal analogs have relatively flat time-action profile and ultra-short acting analogs, which are used as prandial insulins, have far lesser incidence of hypoglycemia.

Indications for using IV dextrose or inj. glucagon and choosing one over the other have not been clearly defined.

The authors have used the term “Adolescent Diabetes” in exclusion criteria, which is not a standard terminology in classification of DM. Instead, they should have justified exclusion by age criteria or Type 1 DM. Justification for excluding women with gestational diabetes who form an important subset of diabetic population who are primarily on insulin therapy has not been adequately provided.

REFERENCES

1. Mishra S, Chauhan A, Jha S. Study of a structured action pathway and persistent monitoring tool among nurses to achieve cent percent management of hypoglycaemia in

in-patients: a measure of quality of healthcare. *Med J Armed Forces India*. 2016;72:27–32.

2. Frier BM, Fisher M, eds. In: *Hypoglycaemia in Clinical Diabetes*. Chichester, West Sussex, England: John Wiley; 1999:42.

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Reply

Dear Editor,

It is gratifying to see the reader's interest in the original article. Certain aspects of the study need to be put in perspective to understand the context of the study.

- (i) The study was done to evaluate the efficacy of nurse-directed hypoglycemia protocol which has been developed in house. Hypoglycemia is seen more in patients who are in acute care settings and on injectable insulin. It is also known that this leads to increased incidence of morbidity and raises the related healthcare costs. The study focused on this subset of in-patients. While oral hypoglycemics do cause hypoglycemia, they are not the drug of choice in patients in acute care settings hence we did not include these patients in the study.
- (ii) This was a prospective study where in data collection was done each day after a 24-h cycle was logged into the quality flash matrix. Inputs derived from this data helped the nurse educators to identify weaknesses/insufficiencies in current training modules and thus modify their teaching strategies in real time. It is this continuous process which brought about the success that is highlighted in this study.
- (iii) “Actual episodes of hypoglycemia” were the laboratory reports of hypoglycemia logged into QF matrix while “nurse documented hypoglycemia” were the instances

the nurse recognized this as hypoglycemia and logged it into the same matrix.

- (iv) Reader's contention about newer basal analogs on insulin is well appreciated. However, it needs to be realized that hypoglycemia is not solely due to type of insulin used but attributable to many other factors, some of which have been recorded in our study too. The point to be noted is that the study focus was not on causes and management of hypoglycemia per se. It focused on improving the response of nurses to episodes of hypoglycemia.
- (v) It is clarified that the first step in management of hypoglycemia was infusion of IV dextrose. If no improvement was noted injection glucagon was administered either by SC or IM route.
- (vi) The honorable reader is correct in his contention about the terminology. It is the insulin dependent diabetes mellitus in patients under 18 year who were excluded from the study. As per hospital policy, the cases of gestational diabetes are to be managed exclusively by the physician. Hence nurse directed HTP was not applied on these patients.

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