virtually no vitamin A injections are available in Indian market, making it one of latest addition in orphan drugs. India still lacks appropriate policy framework for orphan drugs, making a country-specific Orphan Drugs Act (ODA), need of the hour [2]. Well-designed multicenter trials should be done in Indian setting to study role of oral vitamin A in preventing BPD. Until efficacy of oral vitamin A is proved, Indian Academy of Pediatrics should engage with the government to ensure easy availability of injection vitamin A throughout the country.

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Dexmedetomidine vs Midazolam for Sedation in Mechanically Ventilated Children: Few Concerns

We read with interest the recently published research paper on dexmedetomidine vs midazolam for sedation in mechanically ventilated children [1]. We have the following concerns related to the study.

The recommended approach for noninferiority trials is to perform both intention to treat and per protocol analysis and to conclude noninferiority if both analysis produce the same result [2]. Although we could infer from the study flow chart that per protocol analysis was done, but there could be doubt in the minds of the readers if modified intention to treat or per protocol analysis was done. The estimated sample size in the methods section is written as 39 per group whereas in the discussion section the intended sample size is written as 36 in each group. Bradycardia in dexmedetomidine group is mentioned as 17.4% in the results section as well as in the fourth paragraph of discussion section while it is mentioned as 14.4% in the first paragraph of discussion section.

We understand your concern of not giving bolus of dexmedetomidine in your study to avoid bradycardia and hypotension as it has been reported in many studies. There have been few pediatric randomized control trials in which bolus dose of dexmedetomidine was given and there was no difference in the occurrence of bradycardia and hypotension and they found that the rate of adequate sedation was higher in the dexmedetomidine group with lower requirement of rescue drugs and shorter onset of sedation time [3]. We are of the opinion that not giving bolus dose of dexmeditomidine could have been a contributory factor in non-establishment of non-inferiority of dexmedetomidine as compared to midazolam in your study, and this point could have been discussed in the discussion section.

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AUTHORS' REPLY

We thank the readers for their interest in our study [1]. The analysis was a per-protocol analysis; the same is highlighted in the study flow chart.

The errors in discussion section in the values of adverse events in dexmedetomidine group as well as the sample size are typographical errors.

The authors have opined that not giving bolus dose of dexmedetomidine could have been a contributory factor in non-establishment of non-inferiority of dexmedetomidine as compared to midazolam in our study. The median (IQR) duration of dexmedetomidine infusion was 26 (14, 48) hours and even without bolus dose, the serum levels of the drug are likely to be in the therapeutic range to cause desired sedation. Moreover, the frequency of adverse events in the dexmedetomidine group argue against the lack of therapeutic levels. Hence, we feel that bolus dose of dexmedetomidine would not have changed the outcomes.

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