



Work of breathing during HHHFN and synchronised NIPPV following extubation Eur J Pediatr 2019;178:105-110, doi: 10.1007/s00431-018-3254-3. Response to: How can we provide true synchronization in synchronized NIPPV. Corresponding Author: Kadir Şerafettin Tekgündüz; doi: 10.1007/s00431-019-03353-4

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Dear Editor,

We thank Dr. Tekgündüz for his interest in our paper and his comment that ‘the results of the study can be considered valuable’.

If we understand Dr. Tekgündüz’s comments correctly, he is querying the use of the term ‘synchronisation’ when synchronisation is only applied in inspiration, i.e. the infant’s inspiratory effort triggers a ventilator inflation. We would point out the term synchronised intermittent mandatory ventilation during which the same synchronisation occurs has been used for many years and to date [3, 5]. Furthermore, the only forms of neonatal ventilation which are synchronised through

out the infant’s respiratory cycle, proportional assist ventilation [6] and neurally adjusted ventilatory assist [7], are not in routine clinical use on neonatal units.

In response to Dr. Tekgündüz’s specific comments:

We apologise, we did not include that the inflation time was set at 0.3–0.4 s, as we are well aware that particularly, very immature infants may have short inspiratory times [4] and thus using a short inflation time can reduce active expiration [2]. We did not see any evidence of auto-triggering, but agree as in Gizzi et al’s paper [1]. In some infants, the trigger level may need to be adjusted, but they started, as we did, at 0.1 L/min.

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