



Intelligent Ventilation Newsletter



Dear Caroline Huber-Brown,,

The impact of poor patient-ventilator interaction on patient outcomes has been well documented. The first step towards improving this interaction is to detect and correctly identify asynchronies, which may sometimes prove quite challenging. In this issue, we discuss a new study that investigated a systematic method of waveform analysis to detect patient activity.



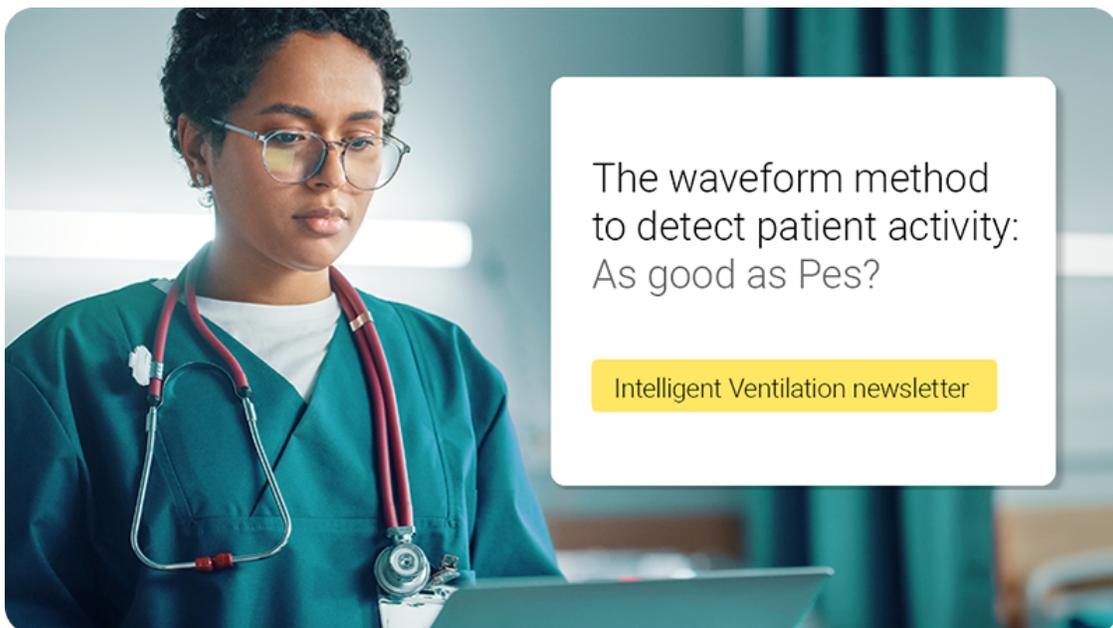
With best regards,

A handwritten signature in black ink that reads "Jens".

Jens Hallek

CEO

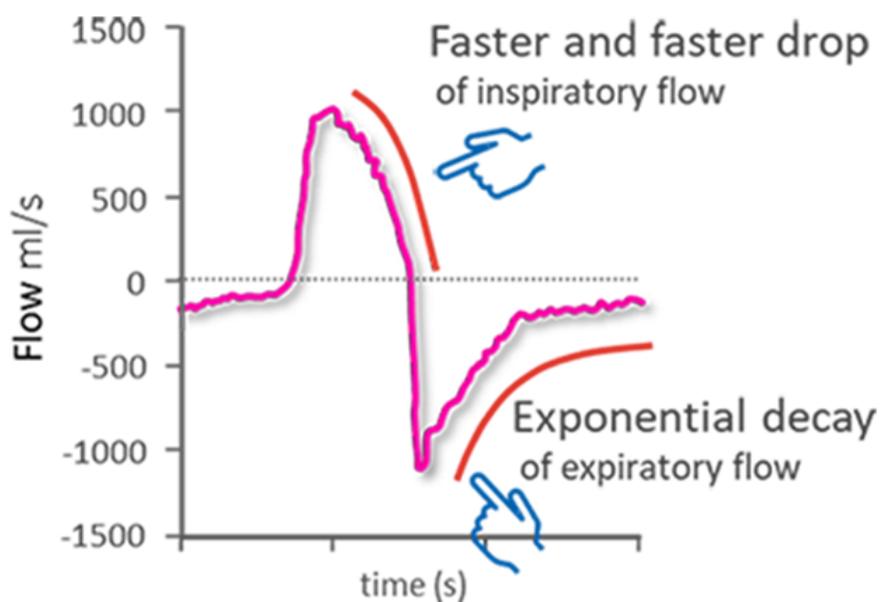
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Asynchrony between patient and ventilator is a common occurrence in mechanically ventilated patients. This mismatch between the inspiratory and expiratory times of patient and ventilator may take various forms, such as early or late cycling, auto-triggering, double triggering, or ineffective efforts, and has been shown to impact on patient outcomes. An important part of treatment is therefore being able to recognize these asynchronies and adjust the ventilator settings accordingly to improve patient-ventilator interaction. A recent study on 16 patients investigated whether waveform analysis is a reliable and reproducible means of detecting the activity of a patient's respiratory muscles at the bedside.

[Read the full article](#)

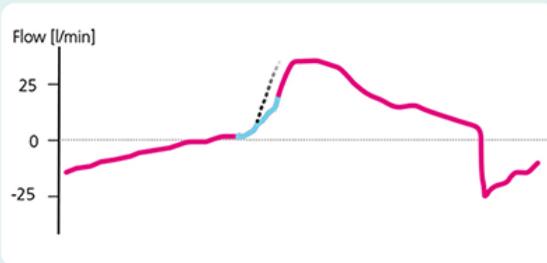


Bedside tip. Using waveforms to detect asynchronies

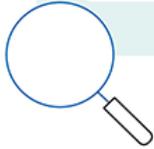
At this year's ISICEM, we showcased our HAMILTON-C3/C6/T1 ventilators, ASV® and INTELLiVENT®-ASV technologies, and our new In2Flow® Nasal cannulas. Click below for a review of this year's International Symposium on Intensive Care and Emergency Medicine in Brussels.

[See the full tip](#)

What type of asynchrony is this?



- a) auto-triggering
- b) delayed triggering
- c) double triggering
- d) delayed cycling



Test your IntelliVence. Asynchronies

What type of asynchrony can you see? If you are not used to reading waveforms, recognizing and treating asynchronies can be quite challenging. Our new quiz lets you test your knowledge with a new question every week (English only). This one is the first in a series of seven, so follow us on social media to make sure you don't miss the others.

[Check your answer](#)



Fact of the day. Did you know?

Although the respiratory system of a horse might seem quite similar to a human's at first glance, there is one very significant difference. The nasal passages are completely separated from the oral cavity by the soft palate, meaning horses can only breathe through their noses. This means they still sniff for potential predators while their heads are down grazing. But it also means their nasal passages are subject to extreme strain when a horse is exerting itself. In our next newsletter we will look at work of breathing in our equine friends! Sources: (1, 2, 3) Image courtesy of Ruslan Khmelevsky (Pexels).



Product insights. IntelliSync®+

Select Hamilton Medical ventilators offer IntelliSync®+ for automatic adjustment of inspiratory and expiratory triggers. Suitable for both invasive and noninvasive ventilation modes, IntelliSync+ mimics the expert's eye by continuously analyzing waveform shapes at least one hundred times per second. This allows IntelliSync+ to detect signs of patient effort (trigger) or relaxation (cycling) immediately, and then initiate inspiration and expiration in real time. For maximum flexibility, IntelliSync+ can be activated to automate either the inspiratory trigger or the expiratory trigger, or both.

[Learn more](#)



International events calendar. Upcoming events

On June 16 we will host our next Experts On Air webinar on esophageal pressure measurement. This October, we will also attend the ESCIM Lives 2022 - 35th Annual Congress of the European Society of Intensive Care Medicine in Paris. Hamilton Medical is supporting congresses, meetings, and online webinars throughout the year. Click the link below to see the full calendar.

[Learn more](#)

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