

Accepted Manuscript

Assessing Mechanical Ventilation Asynchrony through Iterative Airway Pressure Reconstruction

Yeong Shiong Chiew , Chee Pin Tan , J. Geoffrey Chase ,
Yeong Woei Chiew , Thomas Desaive , Azrina Md Ralib ,
Mohd Basri Mat Nor

PII: S0169-2607(17)30993-8
DOI: [10.1016/j.cmpb.2018.02.007](https://doi.org/10.1016/j.cmpb.2018.02.007)
Reference: COMM 4624



To appear in: *Computer Methods and Programs in Biomedicine*

Received date: 5 August 2017
Revised date: 5 January 2018
Accepted date: 2 February 2018

Please cite this article as: Yeong Shiong Chiew , Chee Pin Tan , J. Geoffrey Chase , Yeong Woei Chiew , Thomas Desaive , Azrina Md Ralib , Mohd Basri Mat Nor , Assessing Mechanical Ventilation Asynchrony through Iterative Airway Pressure Reconstruction, *Computer Methods and Programs in Biomedicine* (2018), doi: [10.1016/j.cmpb.2018.02.007](https://doi.org/10.1016/j.cmpb.2018.02.007)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlights

- Mechanical Ventilation can be guided through the use of model-based method.
- Application of model-based method is limited during mechanical ventilation asynchrony.
- Respiratory mechanics estimation is less reliable during asynchrony.
- Asynchrony is not monitored in real time and there is a need to overcoming this problem.
- Iterative pressure reconstruction method is presented to monitor and reconstruct asynchronous airway pressure.
- Reconstructed airway pressure is free from ‘asynchrony’ and enables more consistent respiratory mechanics estimation.
- Iterative Pressure Reconstruction also provide unique metric to quantify the magnitude of asynchrony of a breathing cycle.

Download English Version:

<https://daneshyari.com/en/article/6891016>

Download Persian Version:

<https://daneshyari.com/article/6891016>

[Daneshyari.com](https://daneshyari.com)