

Accepted Manuscript



Correspondence

Nasal Capnography During Remifentanil Patient-controlled Analgesia In Labour

A. Messmer, D. Ishak

PII: S0959-289X(17)30003-1

DOI: <http://dx.doi.org/10.1016/j.ijoa.2017.03.006>

Reference: YIJOA 2551

To appear in: *International Journal of Obstetric Anesthesia*

Received Date: 23 January 2017

Accepted Date: 10 March 2017

Please cite this article as: Messmer, A., Ishak, D., Nasal Capnography During Remifentanil Patient-controlled Analgesia In Labour, *International Journal of Obstetric Anesthesia* (2017), doi: <http://dx.doi.org/10.1016/j.ijoa.2017.03.006>

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.

1 Nasal Capnography During Remifentanil Patient-controlled Analgesia In
2 Labour

3

4 Messmer A, Ishak D

5 Royal Hobart Hospital, Hobart, Tasmania, Australia

6

7

8 Respiratory depression is one of the primary concerns associated with
9 remifentanil patient controlled analgesia (PCA) use in labour. Capnography
10 monitoring has been recommended as a routine with postoperative PCA¹ and
11 was suggested for use with remifentanil PCA² because hypoventilation or
12 apnoea generally precede oxygen desaturation³.

13

14 In a study that did not receive a grant from funding agencies in the public,
15 commercial, or not-for-profit sectors; and following local Ethics Committee
16 approval, we initiated nasal end-tidal carbon dioxide ($_{ET}CO_2$) monitoring, in
17 addition to oxyhaemoglobin saturation via pulse oximetry (SpO_2), in order to
18 assist midwives with respiratory monitoring during use of remifentanil PCA.
19 We used a bi-aperture nasal cannula (Bluepoint Medical, Selmsdorf,
20 Germany), whereby each nasal prong is divided into two channels, one for
21 sampling CO_2 expired through the nose and one for delivering oxygen. A
22 capnogram was displayed on the same screen as the pulse oximetry
23 readings. All midwives received individual education about the physiological
24 basis of waveform capnography.

25

26 The remifentanil PCA protocol was a 20 mcg bolus, delivered at 100 mL/h,
27 with a 2 minute lockout interval. If analgesia proved inadequate, the bolus
28 dose could be increased up to 40 mcg. Low flow oxygen was administered via
29 the nasal prongs at 3 L/min. Pulse oximetry and capnography data were
30 stored and later downloaded for analysis.

31

32 Over an 18 month period 37 women were monitored by nasal capnography.
33 All women successfully completed $_{ET}CO_2$ monitoring for the duration of
34 remifentanil PCA. A total of 291 apnoeic episodes (defined as the absence of

Download English Version:

<https://daneshyari.com/en/article/5582122>

Download Persian Version:

<https://daneshyari.com/article/5582122>

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