Incidence of PONV*

Please check with your local ethics service or governing body as to the process requirements for conducting an audit of your own practise.

<table>
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<th>Background</th>
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<td><strong>This audit guide borrows significantly from the PONV audit prepared by the Royal College of Anaesthetists (please refer to acknowledgement below).</strong></td>
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PONV remains an unpleasant side effect of anaesthesia and surgery. It unfavourably influences the degree of patient satisfaction and is rated high among anaesthesia outcomes that patients want to avoid.\(^1\) Despite continued attempts at addressing this, PONV remains a difficult problem to prevent. It continues to contribute to patient discomfort and increased resource utilisation. Prevention and management of PONV is one of the components of an enhanced recovery package.

This is the second of two ANZCA CPD Audits examining the issue of adult PONV. The alternative PONV audit examines practitioner *compliance* with the prophylactic regime recommended by the Society for Ambulatory Anaesthesia (SAA) guidelines\(^2\) whereas this audit examines the *incidence* of PONV associated with individual/group practice.

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<th>Aim and objectives</th>
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<td><strong>It is acknowledged that establishing an acceptable baseline incidence of PONV is very difficult, given that this varies substantially with different patient populations. It is suggested that individuals nominate a reasonable benchmark. The Society for Ambulatory Anaesthesia (SAA) comprehensive review of PONV(^2) may assist in this.</strong></td>
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If the audit results suggest a higher incidence of PONV than predicted, practitioners are encouraged to reconsider their anaesthetic technique, including their use of prophylaxis, and then reaudit to test for an improvement in incidence.

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<th>Research evidence/ best practice</th>
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<td><strong>The incidence of PONV depends upon a number of factors. Overall, after a general anaesthetic using inhalational agents and opioids without prophylactic anti-emetics, it is around 30(%).(^3) Some patients have a higher risk of developing PONV and scoring systems have been developed to estimate risk.(^4,5) Once PONV has developed, a sub-group of patients will suffer ‘clinically important’ PONV with significantly impaired recovery.(^6) This can be simplified, for audit purposes, to those with a visual analogue severity of nausea score of 75mm on a 100mm scale (VAS)(^8), vomiting 3 or more times(^8), or experiencing PONV that interferes with activities of daily living.</strong></td>
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It has been demonstrated that targeted administration of PONV prophylaxis to those with increased risk of PONV reduces its incidence.\(^7,8\) Moderate to high risk patients for PONV are targeted for prophylactic anti-emetics with the largest number of agents given to those at highest risk. However, compliance of anaesthetists to these guidelines remains low.\(^9\)

PONV is multifactorial in origin. A multimodal approach that includes pharmacological and non-pharmacological interventions has been found to be effective.\(^3,11\)
### Suggested indicators
- Incidence of PONV during the first 24 hrs
- Incidence of ‘clinically important’ PONV

### Standards and criteria for best practice
Incidence of PONV should be lower than that predicted by risk scoring. Incidence of ‘clinically important’ PONV should be <20% of all PONV patients. If incidence is higher than 20%, the anaesthetist(s) should explore reasons for this, institute changes to practice, and then repeat the audit, with the expectation that subsequent incidence would be <20%.

### Suggested data to be collected
(See data collection sheet)
- Series of approximately thirty consecutive patients.
- Proportion of patients experiencing PONV in PACU
- Proportion of patients experiencing PONV in first 24 hours following surgery
- Proportion of patients experiencing PONV for whom symptoms are ‘clinically important’.

### References
10. Eberhart LH. Risk scores for predicting postoperative nausea and vomiting are clinically useful tools and should be used in every patient: Con – ‘life is really simple, but we insist on making it complicated’. *Eur J Anaesthesiol* 2011;28(3):155–159.
| Acknowledgement | This audit guide is adapted from Kumar, A. and Brampton, W. 'Postoperative Nausea and Vomiting (PONV)' In: Royal College of Anaesthetists. *Raising the Standard: a compendium of audit recipes*, 2012; p.120-121. The Royal College has kindly granted ANZCA permission to use this material.

Author: Dr Rodney Mitchell, FANZCA. July 2015.

*This clinical audit template is a suggested guide only, and does not reflect a formal position of ANZCA in relation to PONV.*

Associated documents:

- Incidence of PONV Data Collection Form
- Incidence of PONV Results Summary & Conclusions Form