### Summary of evidence and Expert Committee recommendations

A review of the use of antiemetics in children, particularly for the treatment of postoperative nausea and vomiting (PONV), was prepared by the Discipline of Clinical Pharmacology, University of Newcastle, Australia, following a request by the 2nd Subcommittee. Expert reviews of the submission were prepared by Dr Marcus Reidenberg and Mrs Jehan Al-Fannah. The Committee noted that data summarized in the submission showed that, of the antiemetics available, those with the greatest evidence of efficacy in the prevention of PONV were ondansetron and dexamethasone. The use of promethazine in treatment of PONV was not supported by any published data. The Committee noted the guidelines from the Society for Ambulatory Anesthesia (SAMBA) (1) that recommend ondansetron as first-line treatment for prevention of PONV, with the addition of dexamethasone as required. Metoclopramide and promethazine are not currently recommended. The Committee recognized that all the medicines for the prevention of PONV have age restrictions on use, with the exception of ondansetron which is licensed for use in children older than 1 month by the US Food and Drug Administration (FDA). Droperidol has a black box warning from the FDA due to its association with adverse cardiovascular effects (1). One review of trials in children showed a relative risk of 1.15 to 1.66 for adverse effects with droperidol; the higher risks are associated with higher doses and longer exposure (2). The Committee recommended the inclusion of ondansetron with a square box symbol and dexamethasone as an antiemetic on both the EML and EMLc. It recommended the retention of metoclopramide as an antiemetic for children. It recommended that promethazine be deleted from the EML and EMLc due to lack of efficacy in PONV. The Committee also noted that H1 blockers are effective for motion sickness, but did not consider this to be a public health priority. References 1. Gan TJ et al. Society for Ambulatory Anesthesia Guidelines for the management of postoperative nausea and vomiting. Ambulatory Anesthesiology, 2007, 105:1615–1628. 2. Henzi I, Sonderregger T, Tramer MR. Efficacy, dose-response, and adverse effects of droperidol for prevention of postoperative nausea and vomiting. Canadian Journal of Anaesthesia, 2000;537–551.