

## Nausea and/or Vomiting - Antiemetic Therapy

Nausea and/or vomiting can be very distressing. To provide effective relief it is important to try to establish the cause(s) and tailor therapy appropriately. Nausea and vomiting arise through stimulation of the vomiting centre in the brain stem, which contains muscarinic (M) and histaminic (H) receptors. The chemo-receptor trigger zone (CTZ), is closely linked to and feeds into the vomiting centre and contains serotonergic (5-HT<sub>3</sub>), dopaminergic (D<sub>2</sub>) and M receptors. Some stimuli directly affect the vomiting centre while others indirectly affect the vomiting centre via the CTZ. In patients with difficult to control nausea and/or vomiting consider using a combination of antiemetics that act on different receptors and therefore target different causes e.g. metoclopramide and hyoscine (see table below).

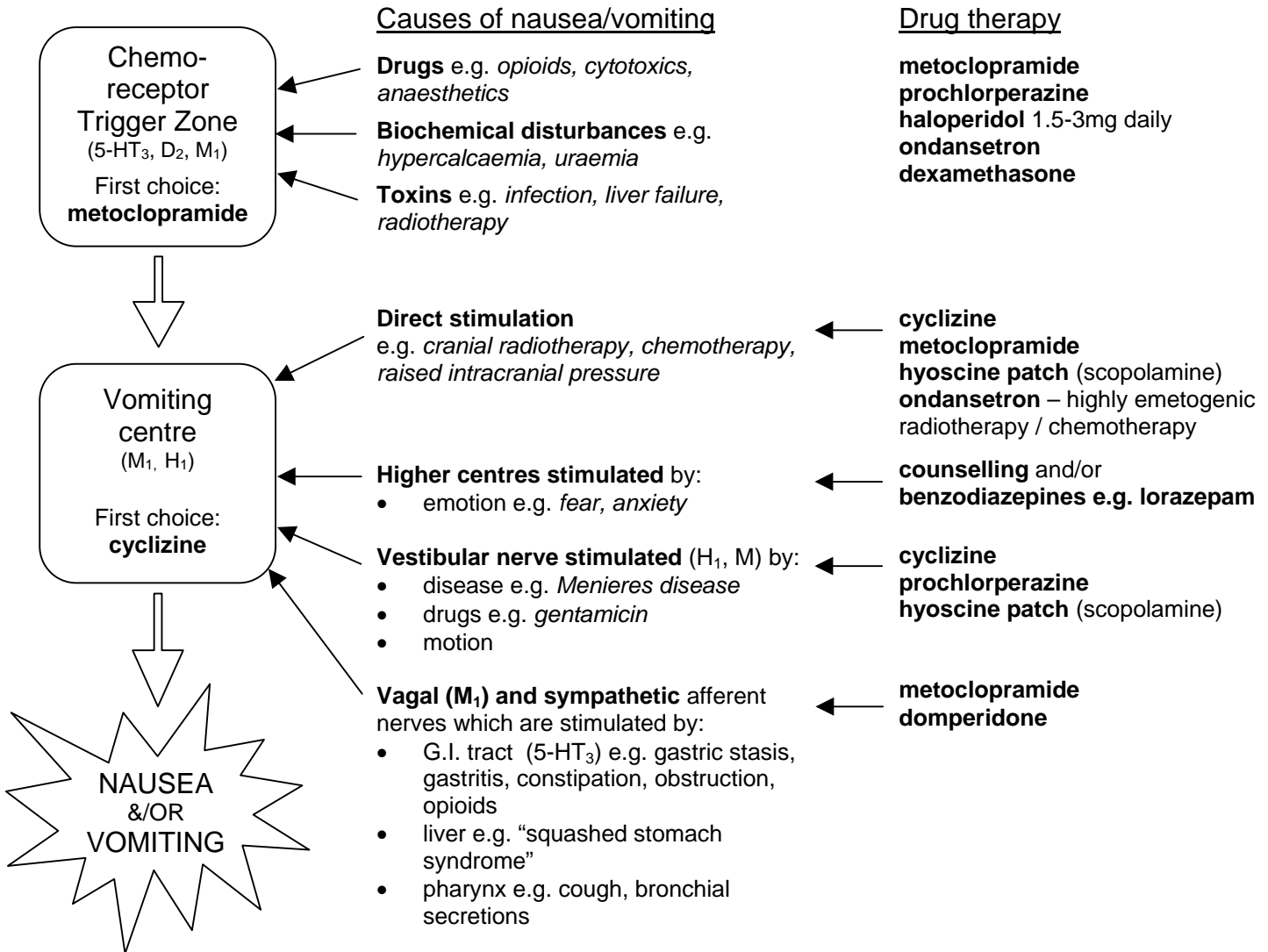


Table showing various antiemetics, which receptors they act on and Pharmac funding.

Drugs	Receptors	Dopamine antagonism	Muscarinic antagonism	Histamine antagonism	Serotonin antagonism	Pharmac fully funded (10/2006)	
						Yes	No
Cyclizine		+	+++	++++	-	injection	oral
Domperidone		++++	-	-	+	-	tab SA
Haloperidol		++++	-	+	-	tab, inj, liq	-
Hyoscine		+	++++	+	-	-	patch SA
Metoclopramide		+++	-	-	++	tab, inj	liq
Ondansetron		-	-	-	++++	tab (restricted)*	inj
Prochlorperazine		++++	++	++	+	tab	other form SA

Key: Inj = injection, SA = Special Authority, tab = tablet, liq = liquid, form = formulations, \* = restricted to patients on chemotherapy only