Motion sickness

Assessment, prevention, and OTC management



Background

1-Motion sickness: nausea ± vomiting, pallor and cold sweats during air, sea or land travel. Vomiting may relieve symptoms, but can be prolonged and severe (1–3).

2-Cause: conflicting signals to the vomiting centre from the eyes, GI tract and vestibular system (1).

3-Effective OTC prophylaxis is available (1).

Epidemiology

1-More common in women (4).

2-Uncommon under 2 years, when treatment is usually unnecessary (1, 4). Most common at 2–12 years, peaking at 12. Incidence falls thereafter, especially after 21, although adults may remain affected (1, 4).

3-Drivers and pilots are less susceptible than passengers (3).

Patient assessment

A-Age:

Check age limits for each product, particularly when choosing one medicine for several children (1). See treatment table.

B-Length of time of the travel:

Match duration of action to journey length: hyoscine up to 4 h, cinnarizine over 4 but under 8 h, promethazine over 8 h (1, 5).

C-Previous history:

Identify family members with previous motion sickness who need prophylaxis (1).

D-Medication history (1):

1-Previous motion-sickness treatments and response.

2-Current prescription and OTC medicines.

Non-pharmacological management

1-Use appropriate child seats to allow a view outside towards stationary objects (1).

2-Look straight ahead (6).

3-Avoid reading during travel (1, 5).

4-Avoid excess food before and during long journeys (6).

5-Sit where movement is least: front of car, near aircraft wings, or midship, preferably on deck (6).

6-Avoid strong food and tobacco odours (6).

7-Ensure good ventilation, e.g. open a window (5).

Acupressure wristbands

B-Acupressure wristbands:

Wristbands apply pressure to points on the inner wrists. Effectiveness is uncertain and harm is unlikely. They may be worth trying for drivers or pregnant women (1).



Pharmacological therapy

1-Once vomiting starts, there is little that can be done; therefore, any medicine recommended by the pharmacist must be taken in good time before the journey if it is to be effective (1).

2-It includes: antihistamines: (cyclizine, cinnarizine, promethazine).

Anticholinergics: hyoscine hydrobromide. Summaries of medicines for travel sickness are listed in (Tables 6-5 and 6-6).

Table 6-5: Summary of medicines for travel sickness

	Use in children [5]	Timing of 1st dose in relation to journey [7].	Dose interval (hour) [7].	Dose for prevention of Motion sickness
Cinnarizine	Older than 5 years	2 h before	8	Child 5–11 years: Initially 15 mg, then 7.5 mg. Child 12–17 years: Initially 30 mg, then 15 mg. Adult: Initially 30 mg, then 15 mg [7].
Hyoscine hydrobromide	Older than 3 years	Dose to be taken up to 30 minutes before the start of journey	6	Child 4–9 years: 75–150 mcg. Child 10–17 years: 150–300 mcg. Adult: 150–300 mcg [7].
Cyclizine	Older than 6 years	1–2 hours before	8	6–12 years: 25 mg. Adult: 50 mg [6].
Promethazine	Older than 5 years	Dose to be taken at bedtime on night before travel or 1–2 hours before travel	24	Child 5–9 years: 12.5 mg ≥ 10 years: 25 mg;

Herbal remedy: Ginger

3-Herbal remedy (alternative or complementary medicine)

Ginger (Zingiber officinale): ginger has been used for many years for travel sickness. Clinical trials have produced conflicting findings in travel sickness (1).

Ginger would be worth trying for drivers who suffered from motion sickness since it does not cause drowsiness, and it may be worth considering for pregnant or breastfeeding women for whom other antiemetics are not recommended (1).

Table 6-6: Summary of medicines for travel sickness [6]

	Likely side effects	Drug interactions of note	Patients in which care is exercised
Cinnarizine, cyclizine, promethazine	Dry mouth, sedation	Increased sedation with alcohol, opioid analgesics, anxiolytics, hypnotics and antidepressants	Angle-closure glaucoma, prostate enlargement
Hyoscine hydrobromide	Dry mouth, sedation	Increased anticholinergic side effects with tricyclic antidepressants and neuroleptics	Angle-closure glaucoma, prostate enlargement

References – Motion sickness

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