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Day 1: After recognition that early antipsychotic drugs acting on dopamine pathways had an impact on vomiting, the search was on for an anti-emetic without extra pyramidal side-effects (EPS). [#domperidone](https://twitter.com/hashtag/domperidone?src=hashtag_click) was licensed in the 1970s

Day 2: Indications for [#domperidone](https://twitter.com/hashtag/domperidone?src=hashtag_click); relief of nausea/vomiting for those over 12 years & over 35kg. Dose 10mg up to three times/day for 1 week, including 2nd line for nausea/vomiting in pregnancy. Same dose used for GI pain in adult palliative care

Day 3: [#domperidone](https://twitter.com/hashtag/domperidone?src=hashtag_click) has rapid oral absorption with high first pass metabolism in the gut & liver. High Vd (low concn in brain), hepatic phase 1 breakdown e.g CYP3A4 & 1A2. 2/3 faecal excretion with small amount unchanged. T½ 7-9hrs; prolonged if severe renal or hepatic impairment

Day 4: [#domperidone](https://twitter.com/hashtag/domperidone?src=hashtag_click) has a dual anti-emetic effect via blocking dopamine receptors in the chemoreceptor trigger zone & accelerating gastric motility & emptying (pro-kinetic effect)

Day 5: Common ADEs: dry mouth. Uncommon: reduced libido, anxiety, headache, diarrhoea, breast pain. Unknown: anaphylactic reaction, convulsion, urinary retention, ventricular arrhythmia, sudden cardiac death, QT prolongation, Torsade de Pointes (NOT exhaustive)

Day 5 (cont) Extra pyramidal symptoms are less likely because [#domperidone](https://twitter.com/hashtag/domperidone?src=hashtag_click) does not cross the blood brain barrier (BBB). However, the pituitary gland lies outside the BBB & therefore [#domperidone](https://twitter.com/hashtag/domperidone?src=hashtag_click) can cause prolactin release (note can be used to stimulate breast milk off-label)

Day 6. [#domperidone](https://twitter.com/hashtag/domperidone?src=hashtag_click) drug-drug interactions. All drugs which can lead to QT interval prolongation should be avoided e.g. lithium. Drugs which increase exposure e.g clarithromycin are marked as ‘severe’ interaction (NOT exhaustive)

Day 7: [#domperidone](https://twitter.com/hashtag/domperidone?src=hashtag_click) was banned in the USA as an anti-emetic in 2004. This was because of concern about the risk of serious cardiac disorders. It may be used in USA as a gastro-prokinetic drug

**CPD**

In addition to the tweets, read the BNF treatment summaries on nausea and labyrinth disorders, as well as the monograph on domperidone and the SPC for domperidone

<https://bnf.nice.org.uk/treatment-summaries/nausea-and-labyrinth-disorders/>

<https://bnf.nice.org.uk/drugs/domperidone/>

<https://www.medicines.org.uk/emc/product/556/smpc#gref>

1. Domperidone is licensed for use as an anti-emetic in adults only

TRUE or FALSE

1. Domperidone is used as a first line drug in pregnancy related emesis

TRUE or FALSE

1. Domperidone slows gastric emptying

TRUE or FALSE

1. Which of the following is TRUE?
2. Domperidone has a high bioavailability
3. Domperidone is predominantly broken down in the liver
4. Domperidone has a very short half-life
5. Domperidone is predominantly broken down in the gut
6. Domperidone exerts its anti-emetic effect by stimulating dopamine receptors in the gut

TRUE or FALSE

1. Which of the following is FALSE?
2. Domperidone helps manage emesis by both its main actions
3. Domperidone only acts on dopamine receptors
4. Domperidone cannot be given if there is any renal impairment
5. Domperidone has a role for gastro-intestinal pain in palliative care
6. Domperidone is less likely to cause extra pyramidal side effects because it does not cross the blood brain barrier

TRUE or FALSE

1. Which of the following is a common side-effect for domperidone?
2. Breast pain
3. Headache
4. Convulsion
5. Dry mouth
6. Enzyme inhibitors such as fluconazole can have a severe drug drug interaction with domperidone

TRUE or FALSE

1. Concerns about cardiac risk led to domperidone being banned in the USA

TRUE or FALSE