

Nausea and Vomiting – a quick guide

5-day palliative care module



Aims of the session

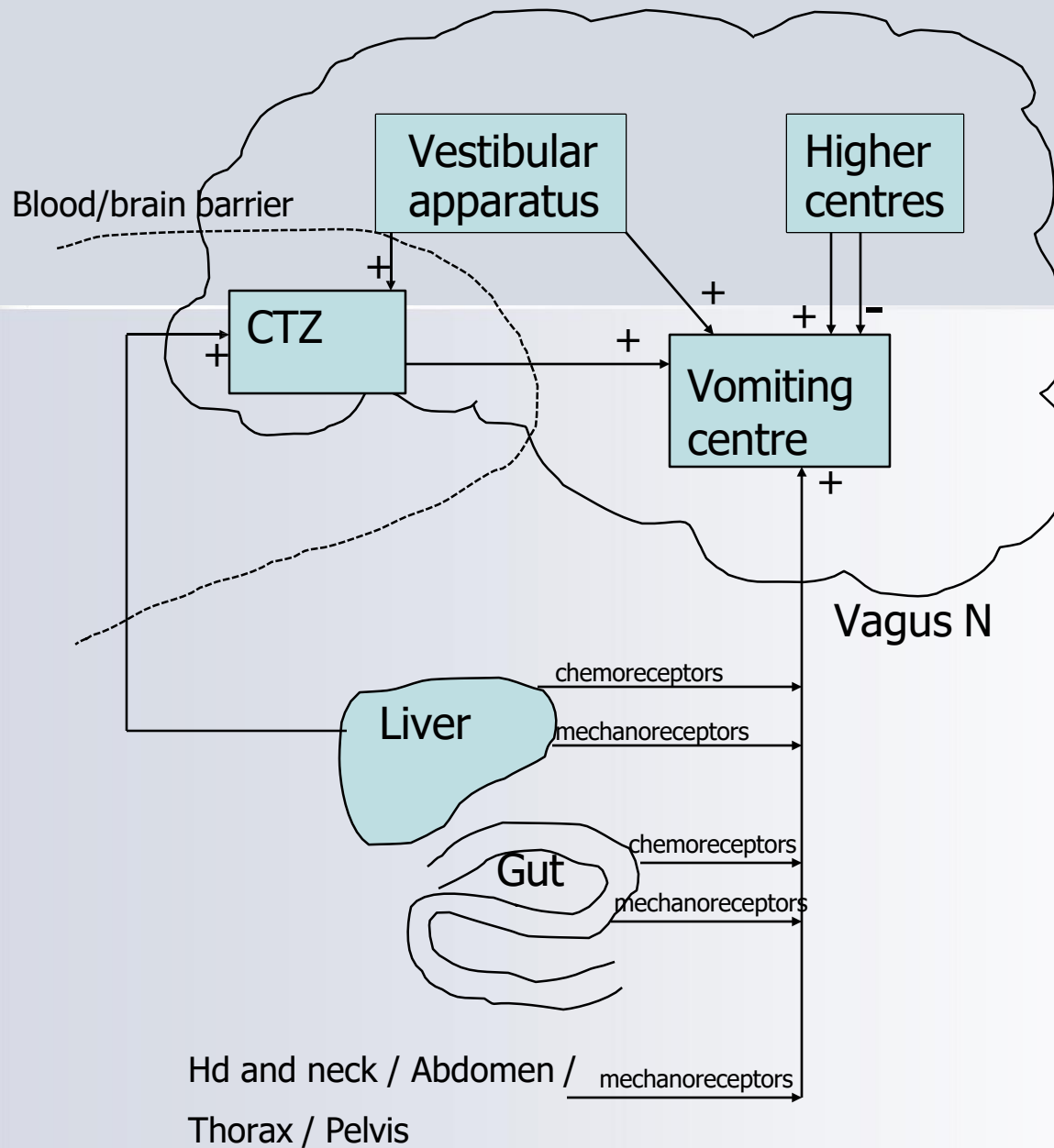
- Have an awareness of the mechanisms of N&V
- Understand the range of anti-emetics in use within palliative care
- Discuss the holistic management of a person experiencing N&V

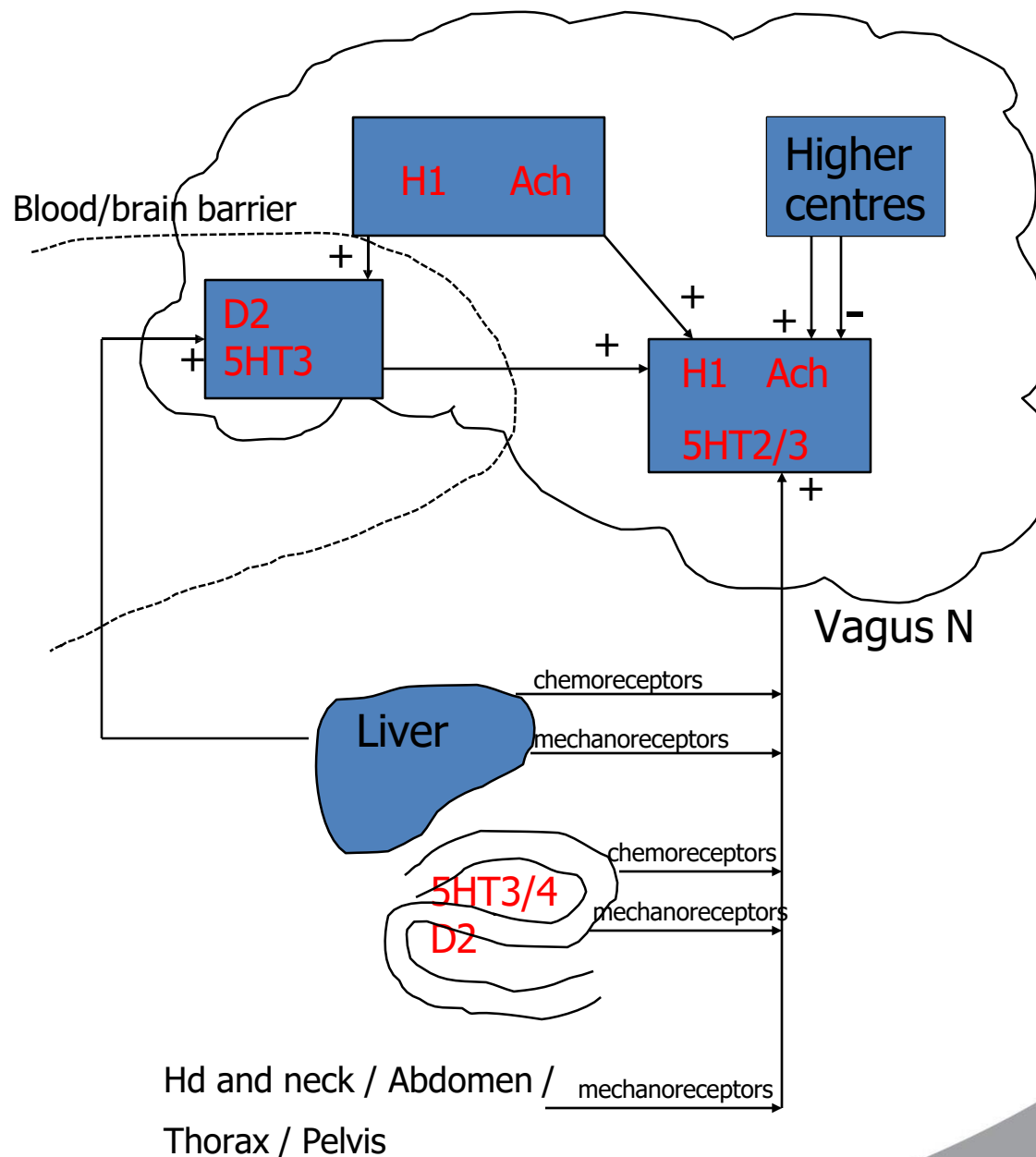


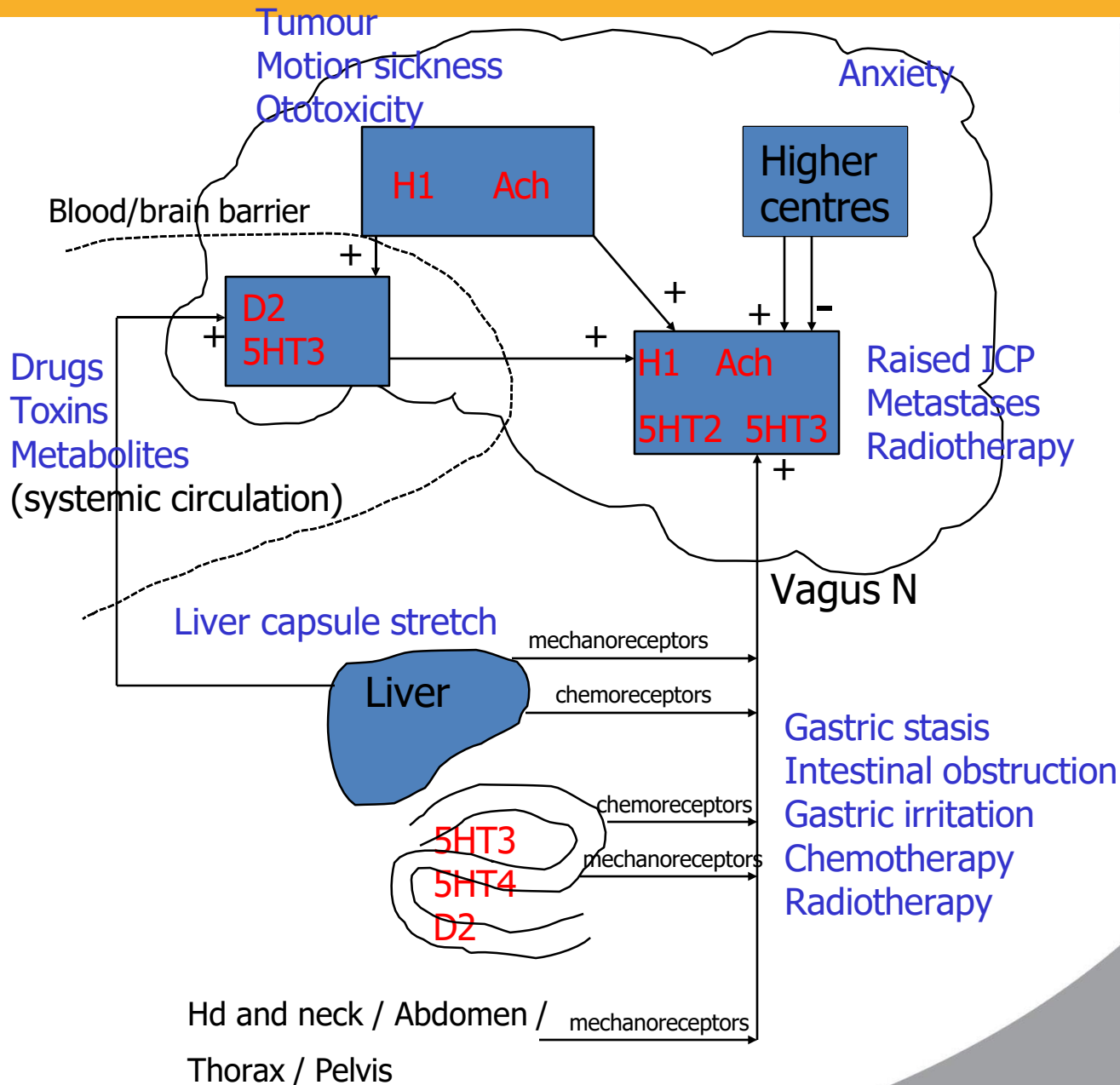
Causes of N&V

- Treatment related
- Illness related









Receptor Site Affinities of Anti-emetics

Receptor site affinities of selected anti-emetics									
	<i>D₂</i> <i>antagonis</i> <i>t</i>	<i>H₁</i> <i>antagonis</i> <i>t</i>	<i>Muscarinic</i> <i>antagonist</i>	<i>5HT₂</i> <i>antagonis</i> <i>t</i>	<i>5HT₃</i> <i>antagonis</i> <i>t</i>	<i>NK₁</i> <i>antagonis</i> <i>t</i>	<i>5HT₄</i> <i>agonis</i> <i>t</i>	<i>CB₁</i> <i>agonis</i> <i>t</i>	<i>GABA</i> <i>mimeti</i> <i>c</i>
Domperidone !	**								
Haloperidol	***			*/-					
Metoclopramide	**				*		**		
Cyclizine		**	**						
Hyoscine <i>Hydrobromide</i>			***						
Chlorpromazine	***	***	**	**					
Levomepromazin e	**	***	**	***					
Olanzapine	**	*	**	**	*				
Prochlorperazine	***	**	*	*/**					
Promethazine	*/**	**	**						
Lorazepam									***
Nabilone								***	
Aprepitant						***			
Ondansetron/ Granisetron !!					***				



Scenario 1

- Pub
- Drinking competition
- 10 pints, quickly
- Start to feel sick
- What is the mechanism?



Scenario 1

- Large volume consumed
- Distension of stomach
- Mechanoreceptors in gut wall stimulated
- Feeds directly to VC
- Large volume vomit
- Feel much better afterwards



Clinical Application

- Similar mechanism in
 - Gastric outflow obstruction
- Treat using drugs to aid emptying of stomach and bowel
- Pro-kinetic drugs



Scenario 2

- Out again!
- Drinking shots of spirit
- Start to feel sick
- What is the mechanism?



Scenario 2

- Ingestion of toxins
- Toxins in the blood act on the CTZ in area prostrema
- This is mediated by D₂ Receptors
- Causes small volume vomit
- Do not feel better
- Further small volume vomits



Clinical Application

- Similar picture seen in
 - Drug toxicity
 - Metabolic upset
- Treat with drugs that act at the CTZ on D₂ receptors
 - Haloperidol



Scenario 3

- Sent home in disgrace!
- In a taxi
- Start to feel sick again
- What is the mechanism now?



Scenario 3

- Vestibular apparatus stimulation
- Dizziness and motion sickness
- Vestibular apparatus feeds into VC



Clinical Application

- Similar picture seen in
 - Motion sickness
 - Labyrinthitis
 - Brain mets
- Treat with
 - Cyclizine



Scenario 4

- Next day
- Feeling better
- Friend brings out a nice bottle of hair of the dog
- The very smell/ sight of it has you vomiting AGAIN!!!
- What is the mechanism now?



Scenario 4

- Memory
- Sight
- Smell
- Higher cortical centres feed into the VC
- Can be very profound



Clinical Application

- Similar picture seen in
 - Anticipatory nausea with chemotherapy
- Treat with
 - Lorazepam



Management in Palliative Care

- Complex
- Often multifactorial
- Physical
- Psychosocial
- Concept of “total nausea”
- Nausea and vomiting separate entities



General strategy

- Evaluation and assessment
- Explanation
- Individualised management
- Close monitoring



Types of vomit

What does this tell you?

What is the pattern?



VOMIT COLOR CHART



CLEAR
usually due to swallowed saliva
after vomiting multiple times



GREEN
undigested bile



YELLOW
digested bile



ORANGE
partially digested foods, or can
be due to infections such as
gastroenteritis



PINK/RED
suggests bleeding in the GI tract
— requires medical attention



BROWN/BLACK
suggests blood may be present,
possibly due to a peptic ulcer
— requires medical attention

MEDICALNEWS TODAY



Management

- Reverse the reversible
- Non-drug measures
- Pharmacological measures



Plan for Treatment

- Specific drug treatment appropriate to cause and receptor involvement
NB use of dopamine antagonists in patients with PD
- Use non-oral route if absorption is poor
 - Rectal preparations
 - Syringe driver



Management of symptoms

- Re-evaluate at regular intervals
 - choice of antiemetic
 - preferred route

- Many need more than one antiemetic, depending on the cause



Other drugs/points to consider

- Octreotide
- Hyoscine butylbromide
- Role of NG tube?
- SC Pantoprazole/PPI
- Avoid using metoclopramide and cyclizine together
- SC syringe pumps can take 4-6 before reaching a therapeutic effect
- SC levo has long and short acting properties so can be given 1-2 daily to avoid the need of a CSCI



Latest update on SPCG

Olanzapine 2.5mgs orally nocte for N&V.
Also available as oro-dispersible tab.

Mirtazepine maybe helpful in patients with
gastric stasis



Summary

- Complex, poorly understood pathways
- Careful assessment and review
- Ensure getting treatment regularly and by appropriate route
- Consider underlying causes
- Consider non drug measures
- Consider side effects of drugs

