# Supporting your registrar to 'Study smarter, not harder'

Dr Chris Starling Senior Local Medical Educator – Head of Training HMCC



# Acknowledgement of Country

We acknowledge the traditional custodians of the land on which we all meet today. We are on Awabakal land and we acknowledge this is Aboriginal land.

We pay our respect to Elders, past, present and emerging, extending that respect to Aboriginal and Torres Strait Islander people here today.

We respectfully recognise the continuing relationship Aboriginal and Torres Strait Islander peoples have with this land.

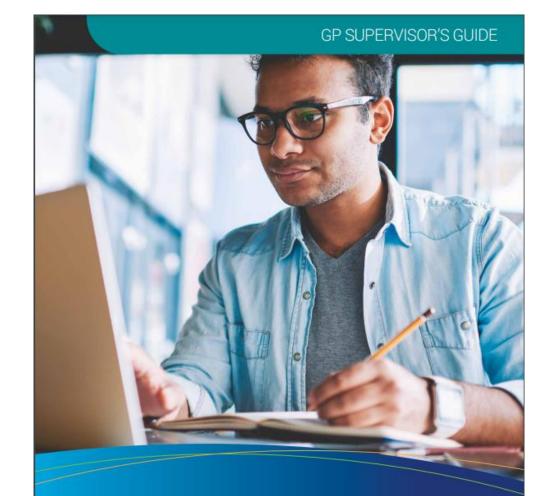


### Learning objectives

At the end of this session, participants will be able to:

- 1. Describe ineffective study strategies
- 2. Discuss evidence-based study strategies
- 3. Develop an effective study plan and use the 'script study technique'.





#### Study skills guide for GP registrars Studying smarter, not harder

RACGP

https://gpsa.org.au/study-skills-guide-for-gpregistrars-studying-smarter-not-harder/







# How to study – *studying effectively*

### Study myths and ineffective study strategies

- 'I think learning should be easy and effortless'
- 'I can cram just before the exams'
- 'Reading and re-reading the textbook is an effective approach for me'
- 'I find highlighting the textbook in different colours a really effective way to learn'
- 'My learning style is visual I can only really learn through use of images'
- 'I am a good judge of my own competence'
- 'I will never learn this. My talent and ability are fixed'



#### Evidence based study strategies

**Spaced Practice** 

**Retrieval practice** 

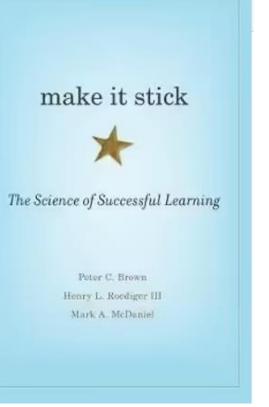
**Elaborative interrogation** 

**Dual Coding** 

Interleaving

**Concrete examples** 







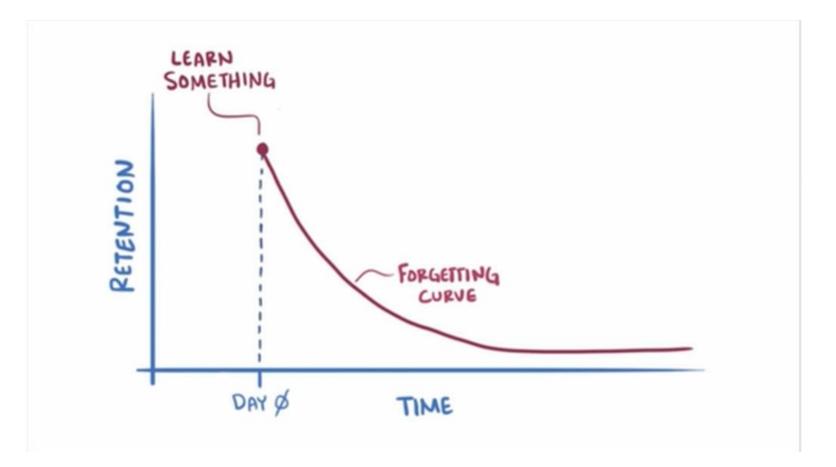


### **Spaced Practice**

- Spacing out study over time the opposite to cramming
- Start planning early for exams and set aside a little time on most days.
- 10 hours spread over 2 weeks is better than 10 hours on one day
- You can learn more in the same amount of time and you are more likely to remember it on exam day



# Ebbinghaus forgetting curve





6 Study Techniques Every Clinical Student Should Know www.medscape.com/viewarticle/849951

### **Retrieval practice**

• To reproduce information from memory that you have already learned - 'Bringing information to mind'

#### **Examples of retrieval practice include:**

- Saying it out loud
- Writing everything recalled on paper
- Creating flash cards see AnkiApp or iDoRecall
- Teaching the topic in a study group
- Doing practice questions
- Making up questions

http://www.learningscientists.org/retrieval-practice



Healthy Profession. Healthy Australia.

#### Flash cards:

- The benefit of flash cards is not only in using them for retrieval practice but also in their development.
- Encourage registrars to create conceptual flashcards which go beyond just definitions or rote memorisation.



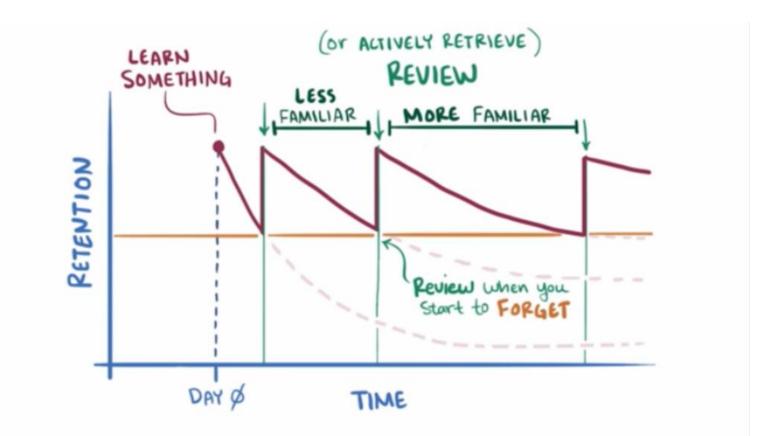
### Retrieval practice questions

- What is the differential diagnoses for this condition? Try to list five (5) or more
- What are the key features on history for this condition? Be specific
- What are the key examination findings for this condition? Be specific
- What are the key investigations for this condition? Be specific
- What non-pharmacological management actions are appropriate for this condition?
- What pharmacological management options are appropriate for this condition?



# Spaced retrieval practice

Spaced retrieval involves repeated recall of information over time and can further offset the forgetting curve



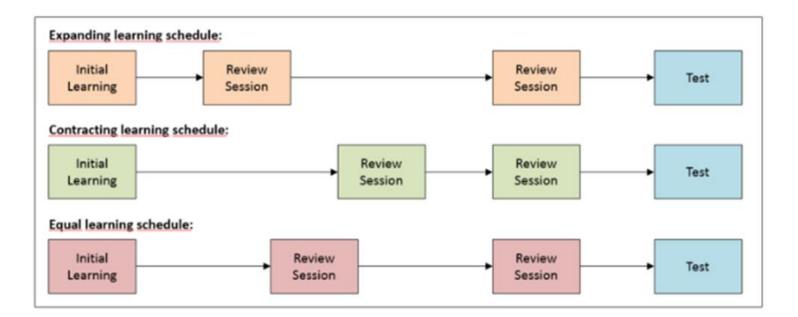
6 Study Techniques Every Clinical Student Should Know www.medscape.com/viewarticle/849951



### Spaced retrieval practice

- There are various strategies of spacing retrieval practice

   these can include socalled expanding,
   contracting and equal schedules.
- Expanding and equal schedules have been shown to be superior to contracting schedules.





### Elaborative Interrogation

- Thinking about what you are studying rather than just passive learning through reading the textbook
- Ask yourself questions such as how and why while you are studying, and then find the answers
- As you elaborate, make connections between different ideas to explain how they work together. Take two ideas and think of ways they are similar and different
- Describe how the ideas you are studying apply to your own experiences or memories. As you go through your day at the practice, make connections to the ideas



### **Elaborative Interrogation**

During a study session, ask yourself the following questions:

Why is this true?
Why does this make sense?
Why is this true of condition A, but not condition B?

Nickson, C. (2020, Nov 3). Elaboration and Elaborative Interrogation. Retrieved from: <u>https://litfl.com/elaboration-and-elaborative-</u> interrogation/ Consider hypothetical situations in relation to different contextual factors. For example:

- How does this apply to the Aboriginal and/or Torres Strait Islander health context?
- How would this change in the presence of red flag features?
  - How would this be managed in the rural or remote context?
  - What if the patient were older/younger?
- What of the patient were a different gender?



## **Dual coding**

 Combining visuals and words to improve memory and learning

# Various websites, podcasts and textbooks use this technique.

- <u>Mindmaps</u>
- <u>Sketchy</u>
- <u>Picmonic</u>
- <u>ReelDx</u>
- <u>Celebrity diagnosis</u>
- Manual of Medicine
- The Curbsiders podcast



www.learningscientists.org/dual-coding www.medscape.com/viewarticle/849951

ptosis

(Horner syndrome)

Source: John Murtagh, Jill Rosenblatt:

John Murtagh's General Practice, 6e: www.murtagh.mhmedical.com Copyright © McGraw-Hill Education.

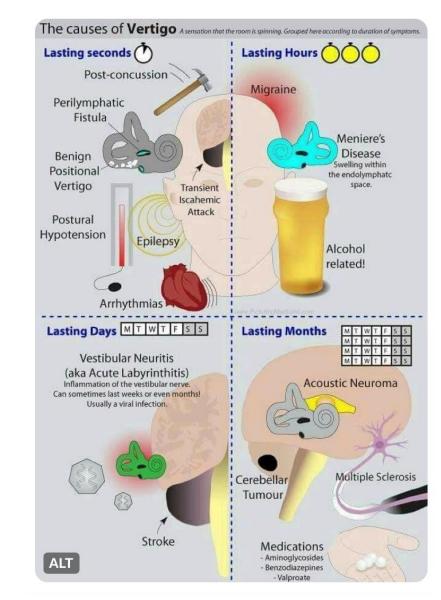
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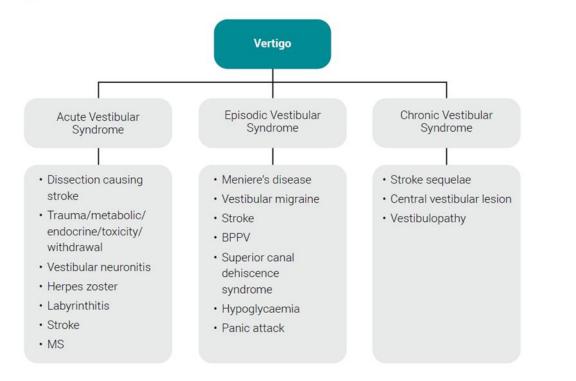


Twitter (Manual of Medicine): https://manualofmedicine.com/

### Mind or concept maps

• Mind or concept maps are a great way to incorporate dual coding.

Example 2: A 'syndrome-based' framework

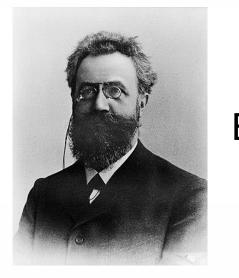


Retrieval mapping takes it a step further and involves learners creating concept maps from memory



- Draw the forgetting curve
- And what is the name of the German psychologist who is associated with it?
- What is this an example of?
- And why is there a picture of Ebbinghaus?





#### Ebbinghaus



#### Interleaving

- Interleaving is the strategy of switching between concepts or ideas while the learner studies and in doing so makes links between different topics
- Interleaving vs blocked practice



#### Top tip:

Study initially through the 'lens' of presentations e.g. dyspnoea, rather than diagnoses e.g. COPD



#### **Concrete examples**

- Concrete examples involve linking specific 'real-life' examples to the idea/concept that is being studied.
- It helps learners understand complex concepts and recognise patterns. It is important that learners look for multiple examples for a given concept to ensure they understand the true underlying principle and don't just memorise one example



<u>See: The Learning Scientists podcast – Episode 10 – Concrete Examples</u>

### Other study methods









### The Cornell note-taking method

#### The Cornell note-taking method

This is <u>a structured note taking system</u> that was proposed by Professor Walter Pauk of Cornell University in the 1950's. The notepad is divided into 4 sections:

#### 1. Title - top of the page

2. Cues - left hand margin column where registrars generate cues, keywords or questions both during and after the lecture or webinar

Cue questions	Main notes Key thoughts

 Notes - large right hand column where registrars make notes during a lecture or webinar

4. Summary - forms the footer at the bottom of the page where registrars write a summary in their own words.

During studying, registrars can cover the notes section and utilise the cues section as part of spaced retrieval practice.



### Additional study tools

#### Horizontal reading exercise

- This method involves registrars formulating a table based on a presenting symptom and then listing differentials and key features.
- This encourages refinement of illness scripts and development of key features for each condition.

#### For example:

Vertigo				
	Vestibular Neuronitis	Labyrithitis	BPPV	Meniere's
Epidemiology				
History				
Examination				
Investigations				
Management				



### Additional study tools

#### Script sorting exercise

- This method also involves refining key features.
- Registrars compare and contrast key features for specific conditions and apply a positive or negative value in terms of how much weight to give that feature.

#### For example:

	Vomiting	Tinnitus	Hearing loss	URTI symptoms
Vestibular Neuronitis	++	-	0	++
Labyrinthitis	++	++	++	+
BPPV	0	-	-	0
Meniere's	+	+	++	-
Stroke	+	0	0	-

- ++ Speaking strongly for the diagnosis
- + Speaking for the diagnosis
- 0 Neutral
- Speaking against the diagnosis
- Speaking strongly against the diagnosis



## Study groups

Study groups have a number of benefits, including:

- Calibration
- Teaching peers ('To teach is to learn twice')
- Increased exposure to different learning styles and areas of strength
- Accountability
- Case discussion
- Support



# Developing the study plan – the timetable and schedule

#### www.francescocirillo.com/pages/pomodoro-technique

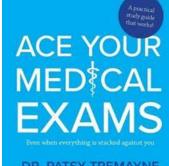
TECHNIQUE

# Weekly study timetable

The study plan should include a weekly study timetable, which is reviewed and adapted on a regular basis.

- If you are having trouble with procrastination, you can try the Pomodoro technique
- Study for 25 minutes
- Take a short break (5min)
- Once you have done 4 cycles take a longer break (25-30min)

- 50-minute hours with 10minute break
- Max 4hr in a block
- Prefrontal cortex is most active in the morning so aim for then



DR. PATSY TREMAYNE PERFORMANCE PSYCHOLOGIST

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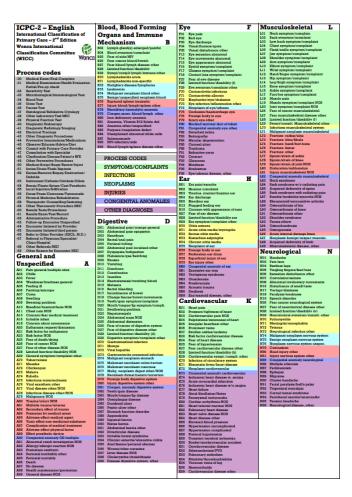
#### Weekly study timetable example

- Try to be realistic
- Consider where you will study
- Incorporate time for family and health/wellbeing
- Perform a weekly review and adapt the schedule as required



Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun
7:00 AM							
7:30 AM	Travel to work	Travel to work		Travel to work	Travel to work		
8:00 AM							
8:30 AM	Work	Work	Study time:	Work	Work	Study time:	Study time:
9:00 AM			50min study			50min study	50min study
9:30 AM			10min breaks			10min breaks	10min breaks
10:00 AM			Max 4hr			Max 4hr	Max 4hr
10:30 AM							
11:00 AM							
11:30 AM							
12:00 PM							
12:30 PM							
1:00 PM			Personal time:			Personal time:	Personal time
1:30 PM			Exercise			Exercise	Exercise
2:00 PM			Family			Family	Family
2.30 PM			Friends			Friends	Friends
3:00 PM							
3.30 PM							
4:00 PM							
4:30 PM							
5:00 PM							
5:30 PM	Travel from work	Travel from work		Travel from work	Travel from work		
6:00 PM							
6:30 PM							
7:00 PM							
7:30 PM	Study time:	Study time:		Study time:	Study time:		
8:00 PM	40-60min	40-60min		40-60min	40-60min		
8:30 PM	spaced retrieval	spaced retrieval		spaced retrieval	spaced retrieval		

#### Structuring the study plan





# 2022 RACGP curriculum and syllabus for Australian general practice

Beach Data Study Plan Calculator					
Number of weeks til exams	26				
Weeks unavailable	2	< Enter data here			
Hours per week of study	16	<please click="" on="" red="" th="" tr<=""><th>iangle for more information</th></please>	iangle for more information		
Total hours	384				
Topic area	Percentage (Beach)	Hours of study	Weeks of study		
General	8.9	34.0	2.1		
Dermatology	9.8	37.8	2.4		
Respiratory	11.6	44.5	2.8		
Musculoskeletal	13.9	53.3	3.3		
Cardiovascular	12.5	48.0	3.0		
Gastroenterology	7.0	26.8	1.7		
Psychological	7.6	29.3	1.8		
Endocrine Metabolic	8.2	31.5	2.0		
Female genital	5.1	19.5	1.2		
Neurological	3.1	12.0	0.8		
ENT	2.4	9.3	0.6		
Pregnancy and planning	4.4	16.8	1.0		
Urology	1.8	7.0	0.4		
Opthalmology	1.2	4.8	0.3		
Haematology and immune	1.4	5.5	0.3		
mens	1.1	4.3	0.3		
social	0.3	1.0	0.1		

#### GP Synergy exam matrix

#### Endocrine/Metabolic/Nutritional

#### **Presentations**

'Incidentaloma' assessment	Goitre/neck lump
Dehydration	Hyper/hypocalcaemia
Excessive appetite	Loss of appetite
Excessive thirst	Weight gain
Fatique	Weight loss

#### Common conditions seen in GP

Acromegaly	Latent autoimmune diabetes in adults (LADA)
Adrenal insufficiency	Lipid disorders.
Chronic fatigue syndrome	Maturity onset diabetes of the young (MODY)
Cushing syndrome	Metabolic syndrome
Diabetes insipidus	<u>Obesity</u>
Diabetes mellitus types 1 and 2	Osteoporosis
Gout	Paget's disease
Hyperaldosteronism	Parathyroid disease
Hyper- and Hypothyroidism	Syndrome of inappropriate ADH
Hypopituitarism	

#### Must not miss and other (less common) conditions

Addisonian crisis/disease	Hypoglycaemia
Congenital adrenal hyperplasia	Phaeochromocytoma
Diabetic ketoacidosis	Pituitary adenoma
Hyperglycaemic hyperosmolar non-ketoacidosis	Thyroid cancer

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GP SYNERGY

#### Expanding spaced retrieval study schedule example

- Aim to start 6 months prior to exams
- Perform a learning needs assessment and start with the areas you feel less confident in first
- Add in practice examinations at key points to allow re-prioritisation of topic areas



Week	Торіс	Spaced retrieval of topics (review each topic area at 1 week, 1 month and 3 months)
0	Practice examination	
1	Cardiovascular week 1	
2	Cardiovascular week 2	Cardiovascular week 1
3	Dermatology week 1	Cardiovascular week 2
4	Dermatology week 2	Dermatology week 1
5	Digestive week 1	Dermatology week 2, Cardiovascular week 1
6	Digestive week 2	Digestive week 1, Cardiovascular week 2
7	Ear, Nose and Throat	Digestive week 2, Dermatology week 1
8	Endocrine/Metabolic/Nutritional	Ear, Nose and Throat, Dermatology week 2
9	Eye	Endocrine/Metabolic/Nutritional
10	Female Genital	Eye, Digestive week 1, Digestive week 2
11	Haematology	Female Genital, Ear, Nose and Throat
12	Practice examination	
12	ID/Travel Medicine/Toxicology	Haematology, Endocrine/Metabolic/Nutritional
13	Male genital	ID/Travel Medicine/Toxicology, Cardiovascular week 1, Eye
14	MSK/Ortho/Rheumatology/Sports Medicine week 1	Male genital, Cardiovascular week 2, Female Genital
15	MSK/Ortho/Rheumatology/Sports Medicine week 2	MSK/Ortho/Rheumatology/Sports Medicine week 1, Dermatology week 1, Haematology
16	Neurology/Geriatrics/Palliative Care	MSK/Ortho/Rheumatology/Sports Medicine week 2, Dermatology week 2, ID/Travel Medicine/Toxicology
17	Paediatrics week 1	Neurology/Geriatrics/Palliative Care, Digestive week 1, Male genital
18	Paediatrics week 2	Paediatrics week 1, Digestive week 2, MSK/Ortho/ Rheumatology/Sports Medicine week 1
19	Genetics	Paediatrics week 2, Ear, Nose and Throat, MSK/Ortho/ Rheumatology/Sports Medicine week 2
20	Pregnancy/Family planning	Genetics, Endocrine/Metabolic/Nutritional, Neurology/ Geriatrics/Palliative Care
21	Mental Health week 1	Pregnancy/Family planning, Eye, Paediatrics week 1
22	Practice examination	
22	Mental Health week 2	Mental Health week 1, Female Genital, Paediatrics week 2
23	Respiratory	Mental Health week 2, Haematology, Genetics
24	Social problems	Respiratory, ID/Travel Medicine/Toxicology, Pregnancy/ Family planning
25	Urological/Renal	Social problems, Male genital, Mental Health week 1
26	Review week	

# The 'Script' study technique – applying the evidence

#### Illness script

• An illness script is described in the clinical reasoning literature as 'an organised mental summary of a provider's knowledge of a disease'. Illness scripts commonly include a disease's pathophysiology, epidemiology, time course, key feature symptoms and signs, and relevant investigations.

#### Illness script

- Key features on history
- Key features on examination
- Red flags
- Key investigations
- Differential diagnosis, including probable and not-to-be-missed'



#### Management script

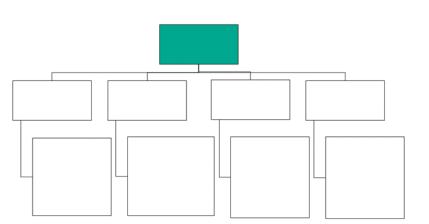
 Management scripts have been defined as 'high-level, precompiled, conceptual knowledge structures' of management options and decisions that are triggered in specific contexts

#### Management script

- Further investigations pathology, imaging, other tests
- Patient education
- Non-pharmacological treatment options
- Pharmacological treatment options
- Options for referral
- Public health issues e.g. driving and work
- Safety netting and follow-up



#### 'Script' study technique template





Condition			
Demographics			
Murtagh's Triad/ Mnemonic			
History Key Features			
Examination Key Features			
Investigation Key Features		References	C
Management Key Features: Consider the RACGP or	Management framework:  1. Patient education:		
ACRRM domains of practice	2. Non-pharmacological: 3. Pharmacological:		
	4. Referral: 5. Safety net and follow-up:	Spaced re What is the	
	6. Public safety:	differentia	
Concrete examples	Consider examples of patients you have seen with this condition	What are t What are t	
Write your own exam questions for spaced		What are t What advid	
repetition +/- add them to Anki		What non-	
Reinforcing activities to check understanding and look for gaps - How will I know I have understood	<ul> <li>Look for a practice Multiple Choice Question (MCQ)/Key Feature Problem (KFP) which assesses the topic</li> <li>Look for a CHECK case on the condition</li> <li>Discuss a real case or case study where a patient presented with the condition with a colleague or your supervisor. During the discussion, consider hypothetical situations in relation to the following different contextual factors:</li> </ul>	What phar (include da	
this topic?	<ul> <li>Aboriginal and/or Torres Strait Islander health context</li> <li>Presence of red flags</li> <li>Rural or remote context</li> <li>Differences across the age range</li> </ul>		

- Roleplay a simulated patient with a colleague or supervisor
- Discuss or teach the topic in your study group
- Develop a concept/mind map for the topic
- Check the <u>General Practice Supervisor Association</u> (GPSA) website to see if there is a teaching plan available you could work through with your supervisor on the condition
- Check Support GPT: available in <u>GPtime</u> for lesson plans with practice questions in a clinical reasoning format

erences Consider a range of resources – Australian references within the last 3-5 years are preferred

	Spaced repetition tool:
	What is the differential diagnosis for this condition? Try to list five (5) or more differential diagnoses.
	What are the key features on history for this condition? Be specific
	What are the key examination findings for this condition? Be specific
	What are the key investigations for this condition? Be specific
	What advice is important for this presentation?
	What non-pharmacological management actions are appropriate for this condition?
hich	What pharmacological management options are appropriate for this condition (include dose and frequency)?
h a ns in	

#### How it works in practice

#### Step 1. Generate a list of common presentations for each ICPC2 category.

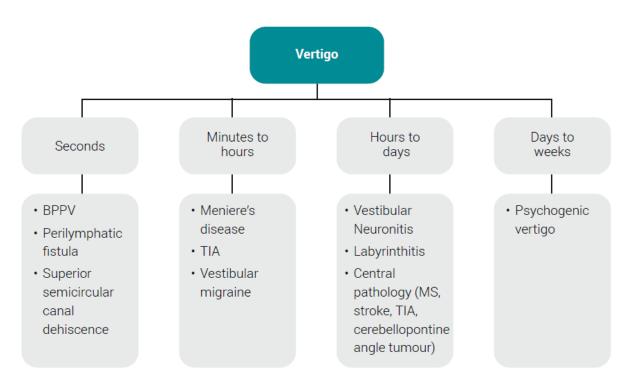
For example, for the neurological system:

Presentations	
Headache	Abnormal involuntary movements
Dizziness	Seizure
Vertigo	Diplopia
Weakness/paralysis	Collapsed patient
Speech disorder	Tics
Gait ataxia	Pain in the face
Disturbance of smell/taste	Sensation disturbance

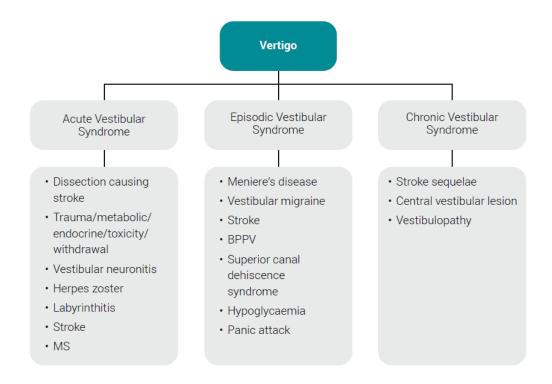


Step 2. Select a presentation e.g., vertigo, and, using the script template, write down as many differentials as you can generate. Use different frameworks to further refine your differential diagnoses (see example 1 and 2 below):

Example 1: A 'time-based' framework









Step 3. Complete the list of differential diagnoses using clinical resources, and then divide these into common and not to be missed.

Common conditions seen in general practice:		
Benign paroxysmal positional vertigo	Meniere's disease	
Vestibular neuronitis	Vestibular migraine	
Labyrinthitis	Post head injury/trauma	
Psychogenic vertigo	Medication/drugs	

Must not miss and other (less common) conditions:		
Acoustic neuroma	Vertebrobasilar insufficiency	
Posterior fossa tumour	Multiple sclerosis	
Intracerebral infection/abscess	Perilymphatic fistula	
Brainstem TIA/stroke	Cholesteatoma erosion	
Herpes zoster oticus	Otosclerosis	
Superior semicircular canal dehiscence	Hypoglycaemia	

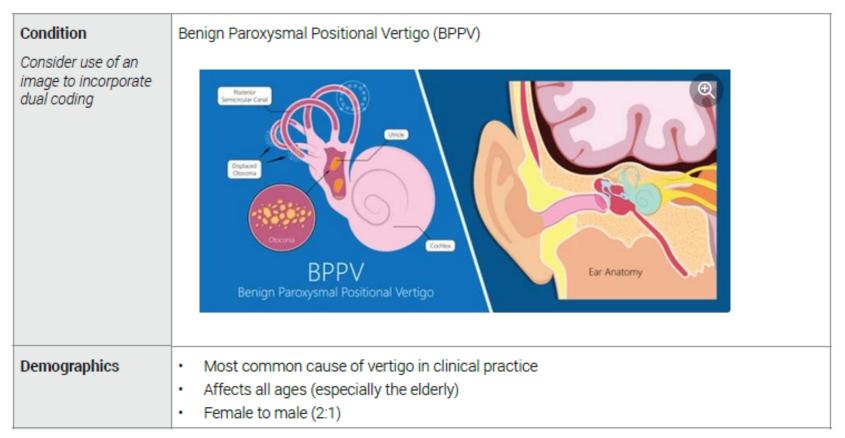
Diagnostic checklists have been developed to prompt clinicians to consider a broad differential diagnosis to reduce diagnostic error. These checklists can also be a useful tool in checking the differential diagnosis list.

Diagnostic Checklist website: <u>https://pie.med.utoronto.ca/DC/index.htm</u>



Step 4. For each condition, develop an illness and management script using the script study template.. Integrate components of effective study techniques, including images, mnemonics, questions, useful references, etc.

For example, for BPPV:





Murtagh's Triad/ Mnemonic	MNEMONIC: ("MVP") -Common Causes of Peripheral Vertigo ("MVP")
	M - Ménière's disease V - Vestibular neuritis and labyrinthitis P - Positional (BPPV)
History Key Features Try putting it in your own words, through use of key features	<ul> <li>Recurs periodically for several days</li> <li>Brief episodes of vertigo (10-60 seconds) associated with nausea and nystagmus</li> <li>Episodes of vertigo triggered by rapid changes in position of the head</li> <li>Symptoms can last for weeks and recur after remission</li> <li>Attacks are not accompanied by vomiting, tinnitus or deafness (nausea may occur)</li> </ul>
Examination Key Features Try to utilise multiple modalities: Text Audiovisual Dual coding	Positive Dix Hallpike Manoeuvre (video) <u>https://youtu.be/kEM9p4EX1jk</u> Nystagmus seen in BPPV has a rotational nature



Investigation Key Features Remember rational test ordering and always link the specific investigation/s to the condition. Consider also including sensitivities and specificities	Nil required (clinical diagnosis)
Management Key Features:	Management framework: 1. Patient education:
Generate a 'management script' for the presentation Consider the RACGP or ACRRM domains of practice	<ul> <li>Reassurance that BPPV is a self limiting condition <ul> <li>Symptoms recur in 20 to 30% of cases</li> <li>Do not use prolonged medication for the symptoms of vertigo, because of the risk of neurological adverse effects</li> </ul> </li> <li>Non-pharmacological: <ul> <li>Epley Manoeuvre (77% success rate an initial attempt and 100% on further attempts) video: <a href="https://youtu.be/mx1VoQtDquc">https://youtu.be/mx1VoQtDquc</a></li> <li>Brandt daroff exercises: <a href="http://www.dizziness-and-balance.com/disorders/bppv/brandt/first.html">https://youtu.be/mx1VoQtDquc</a></li> <li>Brandt daroff exercises: <a href="http://www.dizziness-and-balance.com/disorders/bppv/brandt/first.html">http://www.dizziness-and-balance.com/disorders/bppv/brandt/first.html</a></li> <li>Modified semont manoeuvre: <a href="http://www.neurology.org/content/vol63/issue1/images/data/150/DC1/video1.mpg">www.neurology.org/content/vol63/issue1/images/data/150/DC1/video1.mpg</a></li> </ul> </li> <li>Pharmacological: <ul> <li>Medications may relieve the nausea and vomiting associated with benign paroxysmal positional vertigo (BPPV), but do little for the vertigo.</li> <li>prochlorperazine 5 to 10 mg orally, 6- to 8-hourly for up to 2 days, promethazine 25 to 50 mg orally, 8- to 12-hourly for up to 2 days (maximum daily dose 100 mg)</li> </ul> </li> <li>Referral: <ul> <li>Referral:</li> <li>Referral to physiotherapist with expertise in vestibular rehabilitation therapy</li> <li>Referral to Neurologist</li> </ul> </li> <li>Safety net and follow-up: <ul> <li>Follow-up within 1 week</li> <li>Earlier if red flag symptoms develop</li> </ul> </li> </ul>



Concrete examples Consider examples of patients you have seen with this condition and try to write these up in a similar format to exam questions (i.e., the stem)	Michael Stevens a 59 year old male, attended the practice as a fit in on the day with a 2 day history of feeling dizzy. He describes a sensation that is similar to stepping off a playground merry-go- round. He was last seen by another doctor in the practice 5 months ago for a BP check which was normal. Michael has a past medical history of hypertension, hypercholesterolemia and gastroesophageal reflux disease for which he takes, perindopril 10mg orally daily, atorvastatin 10 mg orally daily and esomeprazole 20 mg orally daily.
	He has no known allergies and no significant family medical history. Michael works as a boiler maker.
	On examination, Temperature is 36.7 oC, blood pressure is 130/85 mmHg, heart rate is 78/min regular, respiratory rate is 14/min and body mass index is 32kg/m2.

Write your own exam questions for spaced retrieval +/- add them to Anki	
	<ul> <li>What non-pharmacological management actions are appropriate for a presentation of BPPV? Describe how to perform an Epley manoeuvre</li> <li>Describe to a patient how to perform Brandt-Daroff exercises</li> <li>What pharmacological management options are appropriate for a presentation of BPPV?</li> </ul>



Reinforcing activities to check understanding and look for gaps - 'How will I know I have understood this topic?' This integrates the	<ul> <li>Look for a practice Multiple Choice Question (MCQ)/Key Feature Problem (KFP) which assesses the topic and add them to your spaced retrieval plan</li> <li>Look for a CHECK case on the condition for example: check, unit 525, Ear, nose and throat (ENT), March 2016</li> <li>Listen to a podcast on the way home from work and then review the show notes/infographic the following day for example: <u>https://thecurbsiders.com/curbsiders-podcast/medical-education/49-vertigo-dizziness-treat-send-home-might-stroke</u></li> <li>Discuss a real case or case study where a patient presented with the condition with a</li> </ul>
following techniques: • Rehearsal	colleague or your supervisor. During the discussion, consider hypothetical situations in relation to the following different contextual factors:
<ul> <li>Reflection</li> <li>Retrieval practice</li> <li>Elaboration</li> <li>Dual coding</li> <li>Calibration</li> <li>Audio recordings</li> </ul>	<ul> <li>Aboriginal and/or Torres Strait Islander health context</li> <li>Presence of red flags</li> <li>Rural or remote context</li> <li>Differences across the age range</li> <li>Roleplay a simulated patient with a colleague or supervisor</li> <li>Discuss or teach the topic in your study group.</li> <li>Describe and perform an examination, procedure, or treatment option.</li> <li>Develop a concept/mind map for the topic</li> <li>Check the <u>General Practice Supervison Australia</u> (GPSA) website to see if there is a teaching plan available you could work through with your supervisor on the condition</li> </ul>
References	<ul> <li>Consider a range of resources – Australian references within the last 3-5 years are preferred</li> <li>Murtagh Chapter 47 5th Edition <i>Dizziness/Vertigo</i></li> <li>Curbsiders podcast: <u>https://thecurbsiders.com/podcast/49-vertigo-dizziness-treat-send-home-might-stroke</u></li> <li>Therapeutic guidelines: Benign Paroxysmal Positional Vertigo</li> <li><u>http://www.racgp.org.au/afp/2016/april/an-approach-to-vertigo-in-general-practice/</u></li> <li><u>http://www.racgp.org.au/afp/200805/24170</u></li> <li><u>http://www.racgp.org.au/afp/200806/24953</u></li> <li><u>http://www.racgp.org.au/afp/2013/januaryfebruary/the-epley-manoeuvre/</u></li> <li>HealthPathways (if available in your local area)</li> </ul>

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## Summary

- The whole learner
- How to study studying effectively
- Developing the study plan the timetable and schedule
- The 'Script' study technique applying the evidence



#### **Questions and discussion**

