'Reason me this' – teaching clinical reasoning to clinical supervisors

Prevocational Medical Education Forum 2023

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Ben

- 55 year old man
- "I have a cough"
- Five weeks
- Non-productive
- Some mild SOB, no chest pain
- Past asthma – 'not since a kid'
- Non-smoker
- Worried about 'cancer'

Clinical reasoning

'…making sense of chaos…'

How doctors think…

Type 1 thinking

What is 6 x 7?

Spot diagnosis

Pattern recognition

Type 2 thinking

What is 17 x 26?

Type 2 thinking

What is 137 x 919?

125903

Cognitive biases

Zoe, 28 yo woman

- 'I think I have a UTI'
- Dysuria and pelvic pain

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Zoe, 28 yo woman

- 'I think I have a UTI'
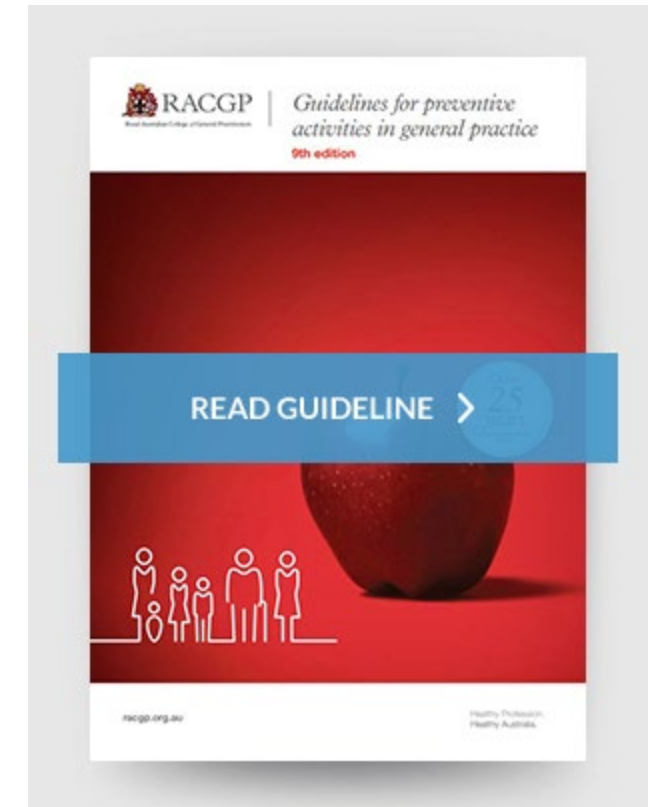- Dysuria and pelvic pain

Zoe, 28 yo woman

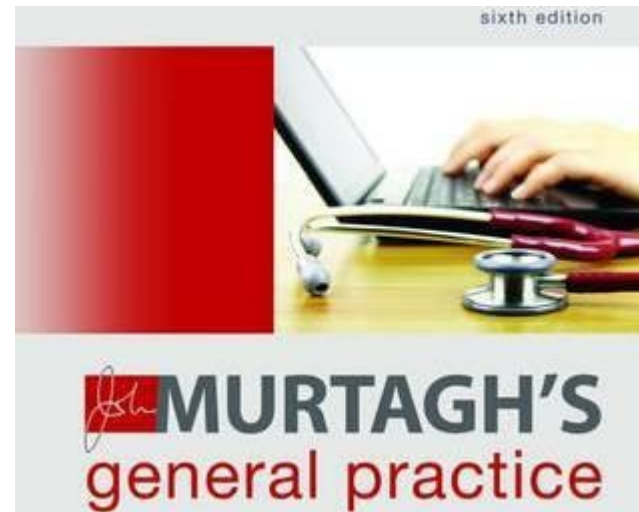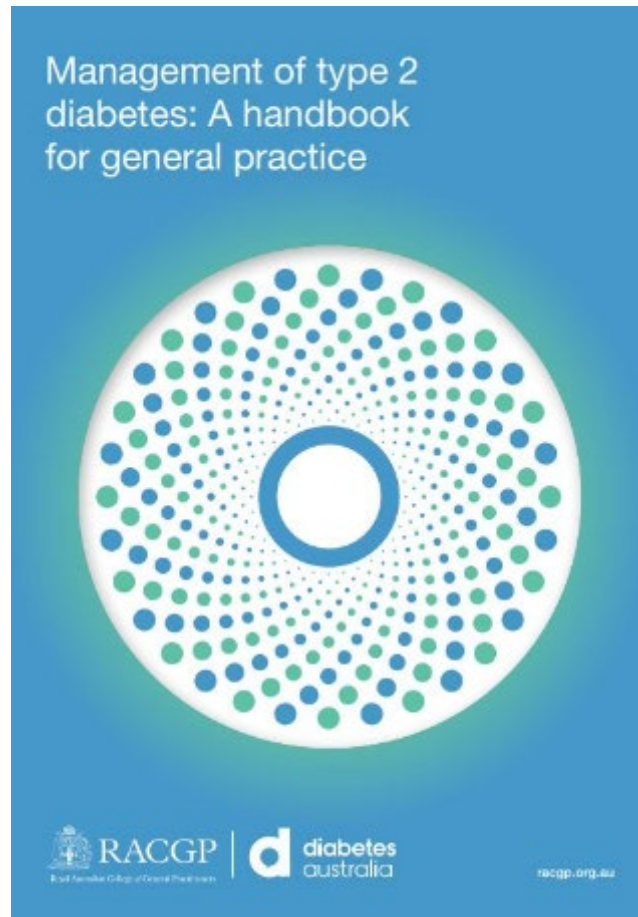- 'I think I have a UTI'
- Dysuria and pelvic pain

How can I support my learner to develop their clinical reasoning skills?

Read. Read. Read.

"There are some things they don't teach you in medical school. I think you've got one of those things."

See patients.
See patients.
See patients.

Discuss cases.
Discuss cases.
Discuss cases.

"Anything else besides shortness of breath?"

PROMPT

- Probability Diagnosis
- Red Flags
- Often missed
- Masquerades
- Patient Telling me?

Diagnostic pause

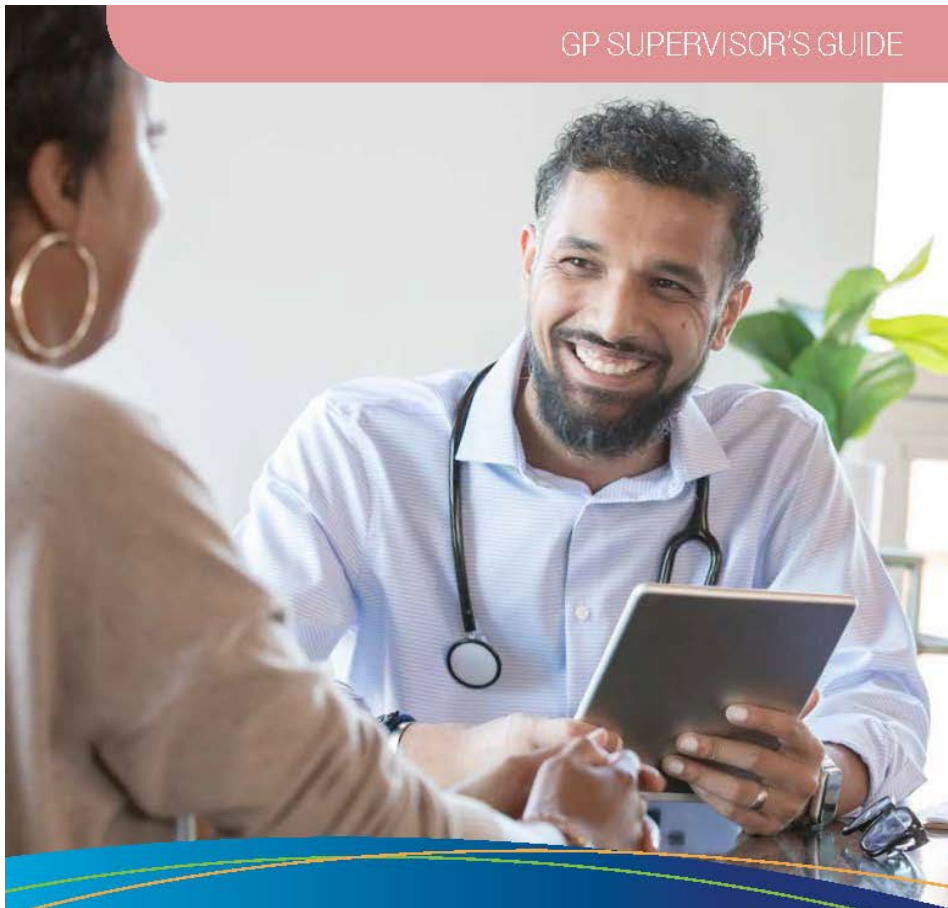# Gut feelings

Think aloud

Resources

GPSA guide

'Rhyme or reason' –
a guided tour of the
hidden kingdom of
clinical reasoning

Dr Simon Morgan
Dr Jess Wrigley

Rhyme Or Reason: – A Guided Tour Of The Hidden Kingdom Of Clinical
Reasoning

Webinar

Clinical reasoning how to…

5Ps MODEL

Presentation of the case
Probe for further information
Pose hypotheticals
Problem definition and discussion
Prioritise and plan learning

HOW TO…

Assess and teach clinical reasoning

Clinical reasoning has been defined as *'the sum of thinking and decision-making processes associated with clinical practice... it enables practitioners to take... the best judged action in a specific context.'*

The method par excellence to assess and teach clinical reasoning is the discussion of cases, including direct consultation observation, problem case discussion, random case analysis, inbox review and simulated patients.

Assessment and teaching of clinical reasoning during case discussion can be facilitated by using the 5Ps model.

5Ps MODEL
Presentation of the case
Probe for further information
Pose hypotheticals
Problem definition and discussion
Prioritise and plan learning

P | **Presentation of the case**
Ask the registrar to present the patient using a 'problem representation' format.
Assess the registrar's case summary, including the key positive and negative features.

TIPS
- Ensure the problem representation comprises 1. a description of the patient demographics and risk factors, 2. the temporal pattern of illness, and 3. the clinical syndrome
- Ensure the registrar also includes 'semantic qualifiers', e.g. acute/chronic; severe/mild; localised/diffuse; previously healthy/significant PMH

P | **Probe for further information**
Probe the registrar for further information using relevant questions.
Assess the registrar's data gathering, synthesis, weighting, and interpretation; communication; patient-centredness; diagnostic processes; investigation ordering; management planning; hypothesis generation; incorporation of evidence; and reflection on practice.

EXAMPLE QUESTIONS

DATA GATHERING
- When the patient first mentioned their symptoms, what were your initial thoughts?
- What further key aspects of history could have been be obtained?
- What physical examination findings could have been sought?
- What red flags symptoms and signs were important to consider?

SYNTHESIS AND INTERPRETATION
- What other key features might have been useful to establish a diagnosis?
- How important was this particular piece of data?
- How did this piece of data interrelate with the other data already gathered?
- Did you use a diagnostic pause?
- Did you recognise a 'pattern' in the way this patient presented?
- What was your working diagnosis and differential?
- Did you use a diagnostic framework to generate a differential?
- Did you have any 'gut feelings', either reassurance or alarm?
- Do you think that you were prone to any cognitive bias?
- How well did your explanation incorporate your reasoning?
- What do you think was the patient's understanding of the problem and specific concerns?

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GENERAL PRACTICE SUPERVISION AUSTRALIA

Clinical Reasoning: The (Online) Game

About the Game

Welcome to Clinical Reasoning: The (Online) Game, the fun learning resource designed to help the medical student and GP in Training to develop their clinical reasoning skills!

Number of players

1-2

Aim of the game

To take a randomly-generated presentation and practice diagnostic reasoning using different reasoning methods to generate a broad list of differential diagnoses. As more cards are drawn and more information becomes available, this differential diagnosis list will be refined. The game ends when it is no longer possible to explain all the information with a single diagnosis.

This game is not competitive...

There is no 'right answer'...

YOU CANNOT 'WIN'!!!

This resource was originally created by GP Synergy with the support of the Australian Commonwealth Government under the AGPT Program, and has been adapted to an online version by General Practice Supervision Australia (GPSA) under Intellectual Property rights granted thereto in January 2023.

https://gpsa.org.au/our-resources/clinical-reasoning-the-online-game/

1) Click on the Demographics card from the blue deck, then
2) Click on the Presenting complaint card from the green deck

62 year old female

9

Weight loss

10

7) Now click on the Results card from the final (red) deck

4) Use the selected model to generate a list of possible diagnoses which could explain the presentation
5) Now click on the Initial observation card from the ochre deck, then
6) Refine your differential diagnosis based on this extra information: this may mean discarding diagnoses or adding new ones

Poor dentition

20

Significant pallor

5

Q+A

Questions and discussion