






Rational test ordering in General Practice

Critical use of investigations is one of the core skills of Australian general practice training and previous research has demonstrated that this is a challenging area for GP registrars. Inexperience and intolerance of uncertainty can lead to overtesting, with consequent risks of 'investigation momentum', false positives, 'incidentalomas' and patient harm. GP supervisors play a key role in influencing GP test ordering behaviour. This tutorial is linked to the supervision activity of TRAFk (test result audit and feedback – see GPSA Guide).

<p>TEACHING AND LEARNING AREAS</p> 	<ul style="list-style-type: none"> • Influences on test ordering behaviour – patients, supervisor and other GPs, 'opinion leaders', uncertainty, 'fear of missing something', prior hospital practice • Potential adverse effects and harms of overtesting e.g. cost, 'incidentalomas', false positives, test cascade, complications of invasive tests • Strategies to manage uncertainty • Key resources for rational test ordering e.g. eTG, disease guidelines
<p>PRE-SESSION ACTIVITIES</p> 	<ul style="list-style-type: none"> • Ask the registrar to undertake the Clinical Reasoning Challenge under exam conditions (7 minutes) and discuss
<p>TEACHING TIPS AND TRAPS</p> 	<ul style="list-style-type: none"> • General practice is a setting with a low pre-test probability of disease in most cases, meaning serious disease is uncommon and false positive results are common • Investigations should only be performed to confirm an existing clinical suspicion • The fewer test performed, the fewer 'difficult to interpret' results there will be! • Investigations should never replace a comprehensive history and physical examination • Involve patients in the decision to test or not • Patients are generally not reassured by ordering tests • Speak to the laboratory or specialist if you are unsure what a test means or what tests to order
<p>RESOURCES</p> 	<p>Read</p> <ul style="list-style-type: none"> • The Royal College of Pathologists Australasia manual • BMJ article - Preventing overdiagnosis: how to stop harming the healthy • JAMA 'Less is More series' • NPS medical tests initiative
<p>FOLLOW UP/ EXTENSION ACTIVITIES</p> 	<ul style="list-style-type: none"> • Watch – Michael Mosely documentary – Are Health Tests Really a Good Idea • Test result audit and feedback using TRAFk - see GPSA Guide • Read the Canadian Family Physician article - Rational Test Ordering in Family Medicine • Read the AFP article on teaching rational test ordering in general practice – We Live in Testing Times

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Clinical Reasoning Challenge

Janice Frost is a 53 year old accountant who presents to your practice for the first time. She is new to the area and brings her health summary from her previous GP.

Janice complains of a 6 week history of left shoulder pain, especially when doing up her bra and reaching up to high shelves. There is no history of trauma or injury, and no red flags for serious disease. On examination there is tenderness over the lateral aspect of the shoulder and a 'painful arc' on shoulder abduction, but otherwise normal range of movement.

Janice is otherwise asymptomatic, denies significant PMH, takes no medications, and has no significant family history. Her last period was 18 months previously. She is not overweight and her BP is 128/77. The remainder of the findings on physical examination are normal.

- Past history
- Non-smoker
- No alcohol
- No significant FHx

On questioning, Janice has had no investigations of any kind for at least 5 years.

QUESTION 1. What is the MOST LIKELY diagnosis? Write one specific diagnosis.

QUESTION 2. What initial investigations, if any, are appropriate for Janice? Tick all that are appropriate.

FBC	Lipids	Pap smear
EUC	BSL	FOBT
LFT	Coagulation profile	X-ray L shoulder
ESR	Vitamin B12/folate	USS L shoulder
CRP	Oestrogen/progesterone/LH/FSH	MRI L shoulder
Ca/Po4	MSU	Bone scan L shoulder
Vitamin D	ECG	Bone mineral density
Iron studies	Mammogram	

QUESTION 3. You commence Janice on meloxicam 7.5mg daily and she returns a week later complaining of a few days of epigastric discomfort, nausea and mild diarrhoea. She has no other symptoms and examination is normal.

What investigations, if any, are appropriate to investigate these symptoms at this time? List up to FIVE.

- 1 _____
- 2 _____
- 3 _____
- 4 _____
- 5 _____

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ANSWERS

QUESTION 1

What is the MOST LIKELY diagnosis? Write one specific diagnosis.

- Supraspinatus tendonitis

QUESTION 2

What initial investigations, if any, are appropriate for Janice? Tick all that are appropriate.

The RACGP 'Red Book' recommends the following investigations as screening tests in an asymptomatic woman in her 50s.

- EUC
- Lipids
- BSL
- Mammogram
- Pap smear
- FOBT

The NHMRC guidelines 'Evidence-based management of acute musculoskeletal pain' for acute shoulder pain do not recommend any investigations in the absence of red flags.

QUESTION 3

You commence Janice on meloxicam 7.5mg daily and she returns a week later complaining of a few days of epigastric discomfort, nausea and mild diarrhoea. She has no other symptoms and examination is normal.

What investigations, if any, are appropriate to investigate these symptoms at this time? List up to FIVE.

- This is most likely a side effect of the NSAID and does not warrant any investigations unless it persists after cessation of the medication.