



Future Leaders Communiqué

**APRIL
2021**

www.thecommuniques.com

**NEXT EDITION
JULY/2021**

Guest Editorial

Vincent Wong

Welcome to the April 2021 edition of the Future Leaders Communiqué. In this edition we explore the challenges for junior clinicians around the processes of diagnosis and the safeguards available to protect patients, especially in a fragmented health system that is prone to error.

These challenges are highlighted in the case of Ms A, a woman who died from a pulmonary embolism during the first trimester of pregnancy. Over the course of her illness, Ms A presented to the emergency department on three occasions. Unfortunately, the diagnosis wasn't correctly identified before it was too late. Although it may be clear to us what warning signs were present and how her diagnosis might have been identified earlier, these are often only apparent with the benefit of hindsight. With the limited information that was available during her clinical presentations, it would have been difficult for any unsupported junior doctor to manage this case independently.

As junior clinicians we are often most vulnerable to the influence of cognitive biases and the challenges that come with undifferentiated presentations. Not only do we lack the experience that senior clinicians use to refine their diagnostic skills, but many junior clinicians also struggle with imposter syndrome.¹ We are often unsure of the adequacy of our clinical skills and lack confidence, causing us to doubt ourselves and not trust the conclusions we have drawn. Those who manage to avoid this, often fall victim to another type of bias described as the Dunning-Kruger effect,² that is, being unaware of our own inexperience, we continue down a management plan with an incorrect diagnosis.

Navigating through both this challenging clinical presentation in a pregnant woman and the internal biases that exist for any clinician is not an easy task. It is situations like this in which we rely on the supervision of our more senior colleagues to protect patients from our blind spots, although this is not a fool-proof strategy.

In this edition we are joined by two experts who help us to explore and navigate our way through these cognitive biases. Dr Nhi Nguyen, an intensive care specialist with a special interest in feto-maternal health, discusses managing diagnostic uncertainty and the barriers to escalating care. Whilst Associate Professor Julia Harrison, an emergency medicine physician and a unit coordinator for a final year medical student module, explores the importance of supervised practice and shares some clinical pearls learned from Ms A's presentation.

CONTENTS

- 2. Guest Editorial
- 4. Editorial
- 5. Case:
How do you know when you need to ask for help?
- 9. Commentary #1
Be wise and confess to ignorance
- 11. Commentary #2
Keeping an eye on junior doctors' clinical blind spots
- 14. Comments From Our Peers

PUBLICATION TEAM

Consultant Editors:

Joseph E Ibrahim
Nicola Cunningham
Brendan Morrissey

Designers:

Samuel Gillard
Paul Ikin

The Future Leaders Communiqué is distributed by the not for profit group 'The Communiques Australia Inc'. (COI-A0106775D)

FREE SUBSCRIPTION

The Future Leaders Communiqué is published on a quarterly basis and sent electronically. Subscription is free of charge. Please register your email address at: www.thecommuniques.com

FEEDBACK

The editorial team is keen to receive feedback about this communication especially in relation to changes in practice. Please contact us at: flc@thecommuniques.com

Guest Editorial (continued)

For every clinician, improving your clinical skills is a lifelong pursuit. As we progress through our careers and improve our diagnostic rigour and accuracy, we will almost always be subject to the influence of cognitive biases. Ms A's case and our expert commentaries serve as a reminder to be conscious of how these biases influence our diagnostic accuracy and the strategies to mitigate this risk.

My hope is that the next time patient care begins to fall through the cracks, you feel able to seize the opportunity to recognise, escalate and discuss the situation with a senior colleague. It's always important to re-evaluate the accuracy of any diagnosis. For that next patient, may you be the clinician who catches their missed diagnosis.

References

1. Weston, C. Imposter Phenomenon. New South Wales: Australian Medical Association NSW; [2019 Jan]. Available from: <https://www.amansw.com.au/imposter-phenomenon/>.
2. Rahmani, M. Medical Trainees and the Dunning-Kruger Effect: When They Don't Know What They Don't Know. J Grad Med Educ 2020; 12(5): 532-534.

Editorial

by Dr Brendan Morrissey

'Life is short, art long, opportunity fleeting, experience treacherous, judgment difficult.'
- Hippocrates

This edition of the Future Leaders Communiqué is a reflection on the development of clinical experience. The case reviewed centres around a junior doctor's assessment of a pregnant woman presenting to hospital with 'rib pain'. The patient, Ms A, ultimately died of an undiagnosed pulmonary embolism. There were a number of red flags in Ms A's presentation that may have assisted in making the diagnosis, and possibly averting the tragic outcome. One is led to wonder; if a more clinically experienced eye had been cast over Ms A, would the outcome of this case have been altered?

Clinical experience is achieved through exposure to a breadth of clinical scenarios, and a conscious effort to learn from them. Junior doctors are commonly faced with new or unfamiliar clinical scenarios. They have, by definition, limited prior experience to draw from. These scenarios can be particularly treacherous as gaps in experience are not always easily identified. The truism that "you don't know what you don't know" can be applied here. There is a difficult balance to be struck between trusting your training thus far and calling for more senior advice. How might a junior doctor recognise blind spots in their practice or gaps in their expertise? If you were faced with a similar dilemma to the case as described in this edition, how might you safely approach it?

Our guest editor for this edition, Dr Vincent Wong, has examined the finding of the coroner's inquest into the case to offer us scrutiny and reflections on these questions. Dr Wong is currently a second-year Basic Physician Trainee at Alfred Health, Melbourne. He is passionate about clinical education as a way to pass on skills and experience, and to improve patient care. His clinical interests include nephrology as well as the study of human factors and system-based approaches to counteract bias and human error in clinical medicine.

Dr Wong has enlisted two highly regarded clinicians to shed further light on the issues raised by the case of Ms A. Dr Nhi Nguyen, an intensivist, offers his own reflections on the cultivation of clinical experience over the course of one's career. Associate Professor Julia Harrison, an emergency physician and Director of Undergraduate Medical Education at the School of Clinical Sciences at Monash Health, offers her advice on common pitfalls in clinical assessment, and tips on how to pursue excellence in clinical assessment.

I am grateful to Dr Wong for collating a truly valuable resource for every junior doctor with this edition of the Future Leaders Communiqué. Our hope is that the ideas and reflections discussed resonate with you and that they play a small part in the evolution of your clinical experience.

GUEST EDITOR

Vincent Wong

GRADUATE FACULTY

(alphabetical order)

Kate Charters

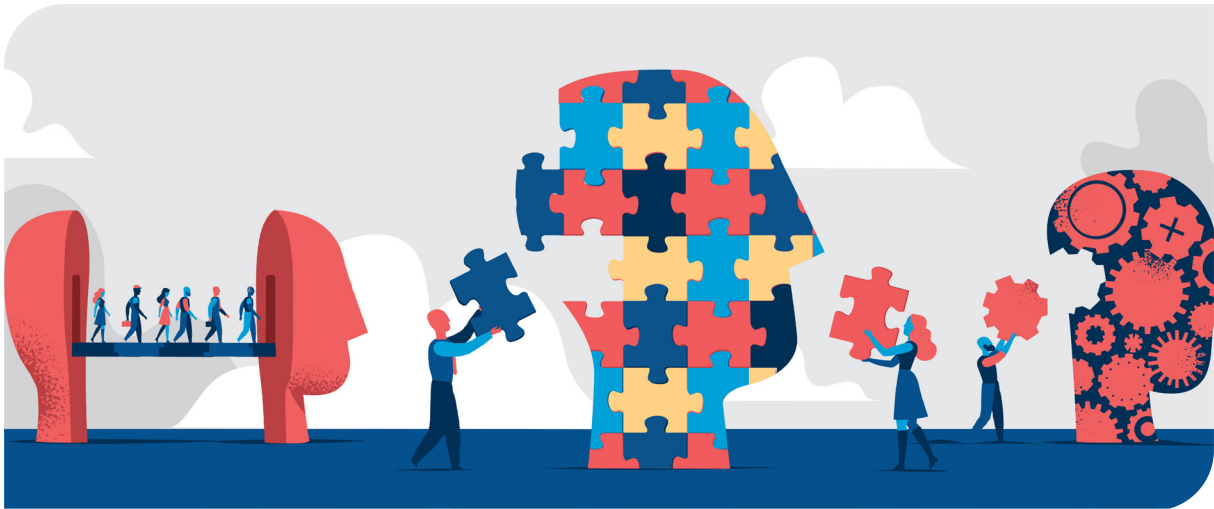
Daniel Grose

Violet Kieu

Emily Lin

Sarah Milanko

Samantha Walker



Case - How do you know when you need to ask for help?

Case Number COR2012 03703

Vic

Author **Vincent Ho-Lam Wong**,
MBBS (Hons) BMedsc (Hons)
Basic Physician Trainee

i. Clinical Summary

Ms A was a 35 year old woman who was at 11-weeks' gestation of her fourth pregnancy. Her past obstetric and gynaecological (O&G) history was uncomplicated. Her past medical history included being a past cigarette smoker, asthma for which she was prescribed Seretide, and obesity (body mass index was 34.5) kg/m² (healthy range 18.5 to 24.9).

Ms A presented to the emergency department of a metropolitan hospital with the complaint of vomiting and rib pain. She was diagnosed with hyperemesis gravidarum and after improving with intravenous fluids was discharged home. Late the next day, Ms A was taken by her husband to a different emergency department that specialised in

O&G care for a second opinion, as she was complaining of ongoing rib pain and feeling unwell throughout the day.

At the second presentation to an emergency department, a resident medical officer (resident) reviewed Ms A noting 'a history of severe, very forceful vomiting the day prior' and that she had developed right rib pain worse on movement with no associated shortness of breath or calf pain. Her initial heart rate was 105 beats per minute (bpm) at triage but had settled to 80 bpm by the time of the review. The respiratory rate and blood pressure measurements were normal. On examination, there was marked chest wall tenderness on the right side.

The resident's impression was that she had musculoskeletal pain secondary to vomiting. The resident did not order any pathology tests, imaging studies or electrocardiograms (ECG). Analgesia in the form of 10mg Oxycodone was administered

with symptomatic improvement.

After a three and a half hour stay, Ms A was discharged home in the early hours of the morning.

That evening, Ms A returned to the emergency department by ambulance with chest pain and shortness of breath. A code blue was issued on her arrival due to profound tachycardia at 160 bpm, an unrecordable blood pressure and an altered conscious state. Initial ultrasound scans, ECGs and bloods tests were suggestive of a pulmonary embolism (PE), however Ms A suffered a cardiac arrest during the clinical assessment.

Whilst undergoing cardiopulmonary resuscitation, she was transferred to the co-located acute care hospital for further escalation of treatment. Despite surgical thrombectomy of large thrombi in both main pulmonary arteries, Ms A died several hours later in the intensive care unit.

ii. Pathology

A forensic pathologist identified the cause of death as pulmonary thromboembolism and haemorrhagic pulmonary infarction in the context of a deep vein thrombosis during the early stages of pregnancy.

iii. Investigation

The coroner's investigation focused on several aspects of Ms A's care with two major themes. These were, the adequacy of Ms A's clinical assessment and, the support available to the resident who conducted the assessment during Ms A's presentation to the emergency department that specialised in O&G care.

This medico-legal death investigation was supported by the testimony of three emergency medicine physicians. The coroner heard from a past director of a major metropolitan emergency department (Expert A) and a professor of emergency medicine who is the director of a major emergency medicine research group (Expert B) to provide their collective views on the case. In addition, an associate professor in emergency medicine who, at the time of giving testimony, had become the co-director of the emergency department in question, discussed the resident's responsibilities during their shift and Ms A's management.

There was disagreement between the two experts and the co-director on the adequacy of Ms A's clinical assessment.

Experts A and B concurred that the resident's clinical assessment was *'appropriate and adequate in exploring the chest/rib pain and to exclude a differential of PE'*, a conclusion consistent with the internal review from the health service involved. However, in the opinion of the co-director, the clinical assessment did not adequately exclude a PE nor did it investigate appropriately for other potential differential diagnoses. Expert A and the co-director agreed that there was insufficient documentation regarding a list of differential diagnoses, relevant negative symptoms, and the discussion that the resident claimed occurred with the second year O&G registrar.

'All three emergency physicians explained that in their opinion chest pain was a complex presentation with many potential aetiologies.'

The coroner also specifically explored the decision-making process surrounding further investigations. Whilst all three emergency medicine physicians agreed that ECG changes suggestive of a PE "are usually non-specific", they had differing opinions as to whether an ECG was an essential investigation in this case. Experts A and B agreed that an *'ECG was not an essential test given the presentation'* and that they *'do not consider ECG a mandatory test in young otherwise well patients with isolated chest wall/pleuritic chest pain'*. However, the co-director asserted that *'an ECG should be taken in respect of any patient who presents with chest pain'*.

At the time, the use of ECGs to evaluate chest pain was not a departmental protocol and the ability to arrange further investigations such as a computed tomography pulmonary angiogram or ventilation/perfusion scan was often limited.



All three emergency physicians explained that in their opinion chest pain was a complex presentation with many potential aetiologies. Specifically, they felt that PEs during pregnancy are a rare and challenging diagnosis. In regard to excluding a PE in a pregnant woman, there are varied approaches as there are no fully validated protocols or evidence-based guidelines that have identified the ideal investigation pathway, explaining why *'three imminently qualified and incredibly well experienced emergency physicians [have] come to different conclusions'*.

Regarding support and staffing, the resident stated they were in their fourth post graduate year and the only doctor rostered to the emergency department. Their responsibilities included simultaneously covering the emergency department, antenatal and gynaecological ward patients, and potentially assisting a senior registrar in theatre overnight. For advice, the resident explained that they would initially contact the second-year registrar or failing that, the fourth-year registrar. They were also aware of an on-site anaesthetic registrar, an on-call obstetrician gynaecologist, and an alert system using codes for urgent response for critically ill patients.

All three emergency medicine physicians also explored the resources needed for a metropolitan emergency department to provide appropriate care. Their opinion was that any emergency department should have doctors appropriately trained in emergency medicine with ready access to critical care services. In particular, it was noted that at the time of the resident's assessment, Ms A had presented for the second time within 72 hours to an emergency department. It was standard practice for these "re-presentations" to be flagged for review by a senior emergency medicine trainee or consultant over concerns around misdiagnosis. As such, the experts asserted that it would have been desirable for the resident to be able to discuss Ms A's case with a senior colleague with emergency medicine experience. It was their opinion in this case that the missed opportunities included lack of appropriate medical staffing for the department and lack of ready access to emergency medicine-specific advice.

iv. Coroner's Findings

The coroner found that the resident through no fault of their own, had limited experience in obstetrics, gynaecology, and emergency medicine and was placed in a situation for which they were not well qualified.

The resident had not received training to the level at which it would be reasonably expected they would understand how to approach a presentation such as Ms A's.

They were also rostered on a night shift with an inadequate level of supervision and no senior emergency staff physically present. The coroner concluded that this impeded Ms A's assessment as it required the resident to identify the need to consult or seek further advice, of which the resident was neither sufficiently trained nor experienced to understand the situations in which it that would be warranted.

The coroner was satisfied that the resident had considered a PE as a differential diagnosis however found that Ms A's presentation was not sufficiently explored or investigated further, with particular reference to the lack of an ECG. The coroner was also concerned with the resident's understanding of which specialist physicians were available to contact for advice. The resident's primary pathway for escalation involved other busy clinicians not working within the ED who were not sufficiently senior nor experienced in emergency medicine to act in a supervisory role.

'Overall, the coroner concluded that the arrangements in the emergency department for the provision of emergency care were inadequate at the time of Ms A's presentation.'

Although the coroner found that a more thorough clinical assessment would have led to the identification of a progressing pulmonary embolism, the coroner appreciated that further investigations to confirm the diagnosis would have had to pass

through numerous barriers that existed at that time. The coroner also acknowledged that even if treatment was initiated at that time, whether it would have been successful was speculative.

Overall, the coroner concluded that the arrangements in the emergency department for the provision of emergency care were inadequate at the time of Ms A's presentation. The responsibility for this failure was the health service involved.

The coroner did note significant improvements in the health service since Ms A's death. This included increased staffing arrangements in the emergency department with a dedicated resident, who is at least in their third post-graduate year, for emergency department presentations. They are supported by doctors on the inpatient service with an on-call general physician and surgeon available for phone advice and, if required, recall into the hospital. The department is also physically staffed by additional senior trainees and consultants trained either in O&G or emergency medicine.



In addition, guidelines and protocols supporting the use of ECGs as part of the clinical assessment for all patients presenting with chest pain and streamlined pathways to obtain further radiological investigations had been introduced.

v. Author's Comments

This coroner's case highlights the challenges junior doctors often face when starting new rotations or when placed into decision-making roles in specialty rotations. These issues are particularly pertinent in situations with diagnostic uncertainty and during times when there is limited supervision available.

The systemic deficits that contributed to Ms A's death primarily revolved around the theme of supervision.

'Responsibility for this should not rest solely with the junior doctor.'

Although there were more senior doctors supervising the resident, they did not have the appropriate experience in emergency medicine. In order to have acquired appropriate advice, the resident would have had to identify that they needed to consult someone more senior, and also identify that their direct supervising clinician may not have had the appropriate experience. No simple task. After which they would have had to navigate the appropriate channels to consult an emergency physician from the co-located health service. It is unreasonable to expect any junior doctor to identify all these factors and navigate these often-complex systems of two different hospital services successfully. Responsibility for this should not rest solely with the junior doctor.

While it is important for junior doctors to be mindful of the limitations of their experience, it can be challenging to identify the gaps in their knowledge.

This is particularly evident when the resident was '*confident it was musculoskeletal*' and how they could tell '*this woman doesn't have a PE just by looking at her*', compared to the co-director who found it difficult to distinguish between rib and chest pain and '*would imagine that other doctors would also find it difficult to differentiate between thoracic pain, rib pain, musculoskeletal pain, or other pain of the chest*'.



One strategy that is commonly used to address this disparity is the use of evidence-based guidelines and protocols. These often assist junior clinicians by providing thorough and structured approaches to complex clinical issues. Unfortunately, while these were not available to the resident in this case, it is important for clinicians to know what guidelines are available and how to access them.

This case serves to emphasise the risks of insufficient supervision and cognitive biases. It reminds clinicians to be conscious of the gaps in their clinical knowledge and their cognitive blind spots. Whilst junior clinicians are often supported and protected from their own lack of experience by adequate oversight from senior clinicians, when these mechanisms fail or are absent, the consequences are often tragic.

vi. Further Reading

1. Pal, A. "Call me if you need me. But remember – it's a sign of weakness.". On The Wards; 2015 April 18. Available from: <https://onthewards.org/call-need-remember-sign-weakness/>.
2. Lennox A, Wright B, Bragge P. How can we improve escalation of patient Deterioration in the hospital setting? Briefing Document. Melbourne, Australia: Behaviour Works Australia, Monash University. November 2018. ISSN: 2208-5165.
3. Johnston MJ, et al. A systematic review to identify the factors that affect failure to rescue and escalation of care in surgery. Surgery 2015; 157(4): 752-63. doi: 10.1016/j.surg.2014.10.017. PMID: 25794627.
4. Johnston M, Arora S, King D, Stroman L, Darzi A. Escalation of care and failure to rescue: a multicenter, multiprofessional qualitative study. Surgery 2014; 155(6): 989-94. doi: 10.1016/j.surg.2014.01.016. Epub 2014 Feb 7. PMID: 24768480.

vii. Keywords

Diagnostic error, pulmonary embolism, pregnancy, supervision, emergency, chest pain, junior doctor



Be wise and confess to ignorance

Dr Nhi Nguyen

B. Med. Sci, MBBS, FCICM
Department of Intensive Care
Medicine, Nepean Hospital
Intensive Care NSW, Agency for
Clinical Innovation

*"To confess ignorance is often wiser
than to beat about the bush with a
hypothetical diagnosis"*

- William Osler. 1921

As a junior doctor, I remember many times, my well-intentioned and very supportive supervisors, saying to me "If you are worried, I am at the end of the phone, give me a call". I also remember many times, thinking I really should know the answer to this, if I call will they think less of me? Striking the balance between knowing when to be an independent practitioner and reaching out when you have uncertainty is part of the art of medicine. The refinement of which doesn't stop once you are a consultant.

The case in this edition of the Future Leaders Communiqué highlights that uncertainty in

medicine is inevitable. Even with all the information available at hand, three experts did not reach concordance regarding the adequacy of the review and more importantly, what investigations should have been performed to exclude what is a rare and challenging diagnosis.

**'In the real world,
we need to settle on
the top one or two
diagnostic possibilities
to determine immediate
management.'**

Why is it that two or more doctors can look at the same patient and same investigations and come up with different conclusions? I have thought about this often over the years. On consideration of many a debriefing session with colleagues, I believe that we all bring with us prior experiences or our bias to every decision we make. We may have insight on some of these biases while others we have no idea about.

Junior doctors calling for advice from their senior colleagues is an opportunity to refine their own art of medicine. The presentation should include their assessment but also what conclusions they have drawn. Through medical school we are asked to develop extensive differential diagnoses lists. In the real world, we need to settle on the top one or two diagnostic possibilities to determine immediate management. This can seem difficult as a recently graduated doctor. Take the opportunity to ask a senior colleague, whether with more experience, would their conclusions be the same. It is through these conversations between colleagues that we all reflect on our art form.

Junior doctors may not know what they don't know. Hence the notion of "call me if you are worried" does not help if the gap in their experience means they do not know when they should be worried. This is where protocols and procedures attempt to plug the gap.

Australian hospitals led the charge for the establishment of medical emergency teams (MET). The impact of the MET system on rates of in-hospital arrests and deaths were reported in 2000.¹ The criteria were developed to provide guidance for when to call for help, in doing so, focusing on picking up the early signs of clinical deterioration. Striking the balance between casting the net wide and having a low threshold to escalate, and setting criteria to call only if patients are seriously ill is difficult.

'A barrier to junior doctors escalating care to more senior staff can be fear.'

There is no doubt that the MET system has resulted in the reduction of cardiac arrests in hospitals. There is also no doubt this has created more work for junior doctors. They are asked to perform clinical reviews of patients who are not unwell with the patients left questioning what the fuss is all about. We can all recall anecdotes of how patients have had repeated clinical reviews over hours or days only to then have a significant deterioration leading to an intensive care unit admission or even death. When this occurs, through morbidity and mortality meetings we ponder how we can improve the system and prevent these cracks from occurring. However, what we don't often see are all the occasions when the use of criteria for escalation has changed the patient's trajectory and prevented the deterioration from occurring.

I am certain that this occurs just as often if not more than the first scenario where relatively well patients are undergoing clinical reviews.



A barrier to junior doctors escalating care to more senior staff can be fear. Fear that may be founded on previous experience of an unpleasant interaction or fear of being discovered as an imposter. The imposter syndrome is a well-recognised phenomenon common amongst doctors, where individuals doubt their skills and knowledge and fear being discovered as a fraud. The behaviours we display are a patchwork of our own experiences. Both bad and good experiences are memorable. They imprint on us in different ways. The bad experiences being a reminder to never behave in that way because we remember how we felt when we may have been belittled and made to feel totally incompetent (when we know we were not!). The good experiences are how supported we felt in our learning journey and how much respect we have for a senior colleague who despite becoming the "expert" remains humbled and measured and always happy to take the call.

The more experience we have, the more often we see outcomes that are unexpected. Clinical decisions have a way of taking on a life of its own. Once you have set the patient on a path, momentum develops. We should always ensure there are opportunities to pause, re-evaluate and change direction if needed.

What makes a good clinician is the ability to recognise we have made an error in judgment based on the information available at the time. Patients and their families, in general do not expect us to know everything as individuals. Medicine has become too complex a field for any of us to be experts in all of its aspects. What is expected from us as a medical profession is to seek information and guidance and acknowledge our area of expertise and limitations, and honestly communicate that to them.

References

1. Bristow PJ, et al. Rates of in-hospital arrests, deaths and intensive care admissions: The effect of a medical emergency team. *Med J Aust* 2000; 173: 236-240.



Keeping an eye on junior doctors' clinical blind spots

Associate Professor Julia Harrison
MBBS(Hons), GCHPE, FACEM
Emergency Physician
Director of Undergraduate
Medical Education at the School
of Clinical Sciences at Monash
Health, Monash University

In the case described, Ms A had an atypical presentation of an uncommon life-threatening condition. Her primary symptom at first presentation of vomiting in early pregnancy, is not typical of pulmonary embolus (PE), and created a plausible, albeit weak, explanation for a diagnosis of musculoskeletal pain. Ms A's presentation would put any doctor's diagnostic skills to the test and, is the sort of challenge we hope our junior doctors have been adequately prepared to meet.

The coroner deemed the Emergency Department's assessment to be lacking in thoroughness and attributed the responsibility for this to the health service given their less-than-ideal supervisory structures. This is despite the fact that the junior doctor did not report feeling uneasy about Mrs A's case and it is not clear whether or not they sought help. A more skilled assessment may well have saved Mrs A's life. In this commentary I will discuss the kind of supervision that helps in situations where junior staff are not aware of what they are missing.

Many patient presentations are difficult to diagnose.¹ Diagnostic mastery is hard to achieve, but with application, diagnostic skills can certainly improve over time. Being able to assess patients accurately and efficiently requires sustained effort supplemented with guidance from more experienced colleagues.

Despite this, junior doctors are rarely observed in action when assessing patients. Most junior doctors' diagnostic skills evolve with practice, but these skills can equally deteriorate if thoroughness is sacrificed for speed at too early a stage in training. Corners get cut and bad habits can set in. Common examples include:

- jumping to conclusions
- ignoring unexplained clues
- not seeking relevant negatives
- asking leading questions prematurely

Conversely, there are doctors with reputations for excellence in diagnosis. What is different about these doctors? How have they honed their craft?

Optimal supervision of junior medical staff provides an important safety net for junior

doctors when they recognise the need for more senior input, and potentially more importantly, when they don't recognise the need for senior input. Having someone more senior to call on

'In the case of Ms A, the junior doctor was not aware that they might be missing something. We all have blind spots.'

for urgent assistance is well-established in many hospitals as evidenced by the presence of Rapid Response Teams and clear lines of escalation for help. Despite this, calling for assistance can still be difficult at times. Everyday examples of this include:

- when one would ordinarily be expected to manage a patient independently
- when the problem is thought to be benign
- when the person who could help is known to be at home or asleep, or frantically busy

In the case of Ms A, the junior doctor was not aware that they might be missing something. We all have blind spots. This is especially so for junior staff and is the reason many emergency departments expect supervising consultants to review all interns' patients at the bedside. In my experience this is time well-spent; the patient gets better care and, the intern learns as they watch a senior doctor fill in the gaps.

Supervision at the bedside is valuable preparation for future independent practice.

Below is a list of some of the possible bedside teaching tips that I see from the case. These are important practice tips unlikely to be found online or in textbooks.

- When a patient presents with 'rib pain' the pain isn't necessarily coming from the ribs. Problem representation is a clinical reasoning step that requires processing the words of the patient into more familiar medical frameworks. In this case 'rib pain' should be translated to 'chest pain', a more familiar problem to work through.
- Chest pain that gets worse with movement and is tender to touch does not automatically imply a chest wall problem. Inflamed parietal pleura can be exquisitely sensitive to movement or pressure and can be seen in pneumonia, pleurisy and PE when there is an adjacent pulmonary infarct. In addition, it is easy to get a false positive for chest wall tenderness by pushing too hard. Equal pressure on both sides of the chest is required for comparison.
- Chest pain that resolves soon after opiate analgesia is not an indication that the cause of pain is not serious. PE can be painless and ischaemic chest pain often comes and goes.
- A repeat set of vital signs after a period of observation and prior to discharge is indicated if any of the vital signs were abnormal at an earlier stage or the diagnosis is unclear.

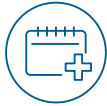
- 'I know this woman doesn't have a PE just by looking at her.' If a patient looks unwell from the end of the bed it is a helpful clue that there may be serious pathology afoot, but the converse is not always true. Patients with PE often look well and can have normal vital signs.



The mindset of a supervising doctor is very much attuned to spotting problems. They have fresh eyes and a knowledge of common traps that enables them to efficiently hone in on the relevant aspects of the clinical scenario. For example: A patient with back pain.... do they have any red flags? A 70-year-old with renal colic.... have we checked for an aortic aneurysm? If told about a 35-year-old pregnant woman with rib pain my probing questions might be...what do you mean by rib pain? Is there a good reason for musculoskeletal pain? Could it be PE?

Diagnostic work can be challenging. Excellence requires a steady effort with due attention given to history and examination. A detailed knowledge of conditions, how they present and how symptoms, signs and test results relate to the underlying pathophysiology is essential. Accurately extracting and interpreting patients' stories, avoiding logical fallacies, being aware of cognitive biases and common traps are all required.

All this can be learned via the following: guidance from your supervisors at the bedside, developing a habit of reading around cases, following up on each of your patients' progress, an openness to learning, and determination to improve. It is a career-long and enjoyable challenge.



I encourage you to energetically pursue excellence in diagnosis as your patients will definitely benefit. Here are two online resources that may assist:

- www.imreasoning.com
- www.masterclinicianproject.com

For supervisors, have in mind that you are both a safety net for current patients and a valuable resource for your junior staff development toward capable independent practice. Make yourself available for routine and straightforward cases as well as unusual, serious and difficult cases. Get to the bedside with your juniors as often as you can, role model how you do things. Try to make time to observe your juniors in action and give feedback. Focus on patient assessment skills, in particular history, examination and clinical reasoning. Check-in periodically even if not called upon. There will be so much you have learned from years of bedside experience that you now take for granted, but that is so important to share.

References

1. Scott, Ian A, & Crock, Carmel. (2020). Diagnostic error: incidence, impacts, causes and preventive strategies. Medical Journal of Australia., 213(7), 302–305.e2. <https://doi.org/10.5694/mja2.50771>.

Comments From Our Peers

"A learning point is to be cautious with the patent who re-presents. Also, that the pregnant patient who presents with a non-obstetric medical problem (such as 'rib pain' in this case), may need assessment or opinion from a multi-disciplinary team approach."

"It is always welcome to be reminded of the dangers of cognitive bias when one becomes comfortable or set into a routine of seeing 'the usual presentations'. It is particularly then that a critical case may appear."

"Embarking on a career as doctor involves a lifelong journey of learning about not only medicine but also about oneself."

"Although it is common practice to document relevant history and examination in favour of, or against certain differentials, this is a timely reminder to explicitly document such likely or unlikely differentials for the benefit of the patient, fellow and future clinicians alike."

"It is heartening to see that this health service responded so positively to the poor outcome and improved multiple facets of the process to support its staff and improve patient outcomes. Ultimately this is the aim of all feedback/learning processes and has clearly been addressed in this case."

"Sometimes even after a thorough assessment there is diagnostic uncertainty. In these cases, not only is it important to get more senior advice, but also to have a safety net for the patient. Let them know when to come back. Who is going to review them to ensure that deterioration is not missed?"

"I think the PMCV's Teaching on the Run (TOTR) may be of interest, as it emphasises the importance of senior clinicians to supervise, but also - may help juniors understand what supervision should be available to them, so to perhaps lessen the barriers to seek help when required. <https://www.pmcv.com.au/teaching-on-the-run-totr-program>."

Disclaimer

All cases discussed in the Future Leaders Communiqué are public documents. We have made every attempt to ensure that individuals and organisations are de-identified. The views expressed are those of the authors and do not necessarily represent those of the Coroners' Courts, the Victorian Institute of Forensic Medicine, Monash University, the Department of Health and Human Services (Victoria) or the Victorian Managed Insurance Authority.

Medico-legal disclaimer

The information in this edition is for general use only and should not be treated as substitutes or specific advice relevant to particular circumstances. The information is presented for the purpose of disseminating information for raising awareness about safety and quality of care. While the authors have exercised due care in ensuring the accuracy of the material the information is made available on the basis that we are not providing professional advice on a particular matter. This content is not a substitute for independent medical, clinical, ethical, legal, professional or managerial advice.

The authors, The Communiqués Australia Inc, Department of Health and Human Services (Victoria) and Monash University do not accept any liability for any injury, loss or damage incurred by use of or reliance on the information provided. While we make every effort to ensure the quality of the information available. Users should carefully evaluate its accuracy, currency, completeness and relevance for their purposes, and should obtain any appropriate professional advice relevant to their particular circumstances.

Reproduction and Copyright

This document may be reproduced in its entirety for the purposes of research, teaching and education and may not be sold or used for profit in any way. You may create a web link to its electronic version. Permission must be obtained for any modification or intended alternative uses of this document. If referring to this publication, the following citation should be used: Future Leaders Communiqué [electronic resource]: The Communiqués. Available at: www.thecommuniques.com

Acknowledgements

This initiative has been made possible by collaboration with Monash University, the Victorian Institute of Forensic Medicine, 'The Communiqués Australia Inc' and funding from the Department of Health and Human Services (Victoria) and the Victorian Managed Insurance Authority.