

Future leaders **Communiqué**

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Next Edition: January 2019

GUEST EDITORIAL

Dr Danielle Panaccio

Welcome to the October 2018 issue of the Future Leaders Communiqué. In this issue, we will be exploring how difficulties in recognising and communicating abnormal results from laboratory and imaging investigations leads to significant patient harm. We will be reflecting on the coronial inquest into the death of a 65-year-old man who was admitted to a regional hospital after a quad bike crash and subsequently died of sepsis.

In our role as junior doctors, we are responsible for the investigations we order and for ensuring the results are reviewed and acted on as required. During a busy day of ward rounds, admissions, and Medical Emergency Team (MET) calls, it is often difficult to find the time to sit down and carefully review the results of all the investigations we have ordered. When we do find the time to review a result, it is sometimes challenging to know how to interpret an abnormal result and what action is required.

Reflecting on my internship and residency years, I recall a number of times when I had discovered abnormal test results and needed to rely on my registrars to interpret their significance. For example, what do I do with a patient who has an elevated troponin in the setting of new onset atrial fibrillation?

As junior doctors, we are at the start of a lifetime of learning and as such, are not expected to know all the answers. However, we should always aim to do the best by our patients. This includes seeking help from our senior colleagues and supervisors if we are unsure of how to manage a patient, interpret a test result, or are generally concerned about a patient's progress. Working in, and contributing to, an environment that fosters a supportive culture with adequate supervision empowers junior doctors to seek help when required and leads to improved outcomes for our patients.

As we all know, medical teams in hospitals are led by a consultant who has completed their specialty training. They are responsible for the supervision of junior doctors and are ultimately accountable for the patient's care. Junior doctors may work in these teams as interns, residents or registrars. Registrars are generally responsible for the day-to-day management of patients, which includes making sure that patients are reviewed daily, investigations are ordered, and appropriate management is provided. Registrars are often supervised at a distance by consultants who conduct their ward rounds on patients with variable frequency (daily to weekly) and who are available via phone.

Junior doctors, especially registrars, are thus the eyes and ears on the ground for consultants and are of great importance in the quality of patient care. To help ensure safe patient care, junior doctors should report to the consultant any significant investigation results or changes to a patient's progress. As a junior doctor, there is a natural desire to impress the consultant - who may even be your speciality training supervisor - and create the impression that everything is running smoothly. However, we cannot let this desire or the fear of appearing less than perfect compromise patient care.

As discussed in the coronial inquest in this issue, a failure to communicate an abnormal result to the ward consultant led to a missed opportunity to recognise and treat developing sepsis. Speaking up about abnormal investigation results may take a little extra time, but will ensure the appropriate action is taken for the patient.

GUEST EDITORIAL (CONTINUED)

Sepsis is one of the leading causes of hospital deaths worldwide. When patients are developing sepsis, it can be difficult to identify, and may present in an atypical fashion. Timely recognition and appropriate management of patients at risk of sepsis is important in reducing mortality associated with this condition. As junior doctors, we play a crucial frontline role in thinking about the possibility of sepsis. We can then identify early features and initiate prompt treatment to ensure that sepsis is never missed in our patients.

EDITORIAL

We are pleased to introduce Danielle Panaccio as our guest editor for this issue. Danielle is currently a second-year basic physician in training at St Vincent's Hospital in Melbourne. Post-basic training, she plans to complete advanced training in respiratory and general medicine. Danielle completed a Bachelor of Medicine and Bachelor of Laws at Monash University, and aspires to bring these backgrounds in to her future work. She has held representative roles with the Postgraduate Medical Council of Victoria, the Australian Medical Student's Association, and the Ethics and Medical Law Committee of the Australian Medical Association. She has a keen interest in the social determinants of health and the challenges currently facing the Australian healthcare system.

Danielle's edition presents a coroner's case of missed red flags, resulting in missed opportunities to diagnose and treat a life-threatening condition. Central to the many challenges faced in the case, was the concept of team hierarchy and the gaps in communication that was evident between members of the team.

These issues are explored further in the two insightful and informative expert commentaries, provided by Dr Amy Osborne, a Consultant Physician at St Vincent's Hospital Melbourne, and Professor Karin Thursky, an infectious disease physician, and Director of the National Centre for Antimicrobial Stewardship.

In other news, we have a fabulous opportunity for junior doctors to partner with us as a guest editor to produce an issue of the Future Leaders Communiqué. We are seeking six guest editors who will be mentored by the senior editors to publish the issues in 2020 and 2021. To be eligible you must have completed medical school and be working as a junior doctor (intern through to PGY-4), and want to learn and write about patient safety. Applications close 4 FEB 2019 and are accessible through this link: <https://goo.gl/forms/EGyQEnB1ElaRP3nW2>.

ACKNOWLEDGEMENTS

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DISCLAIMER

All cases that are discussed in the Future Leaders Communiqué are public documents. A document becomes public once the coronial investigation process has been completed and the case is closed. We have made every attempt to ensure that individuals and organizations are de-identified. The views and conclusions are those of the authors and do not necessarily represent those of, the individual Coroner, the Coroners Court, Department of Health, Department of Forensic Medicine, Victorian Institute of Forensic Medicine or Monash University. If you would like to examine the case in greater detail, please contact us and we will provide the relevant website for the Coroners Court jurisdiction.

FEEDBACK

The editorial team is keen to receive feedback about this communication especially in relation to changes in clinical practice. Please email your comments, questions and suggestions to: flc@vifmcommuniques.org

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CLINICAL SUMMARY

Mr J, a 65 year old male, presented to a rural hospital with abrasions on his elbows and knees after a quad bike crash at his farm that day. Mr J had a past history of chronic gout and had recently commenced indomethacin (a non-steroidal anti-inflammatory medication) for an olecranon bursitis. Initial investigations in the emergency department demonstrated no fractures on x-rays but a raised white cell count (WCC) of 12.3 (reference range 4.0 – 12.0 $\times 10^9/L$) and a raised C-reactive protein (CRP) of 329 (reference range < 5 mg/L). Mr J was admitted to hospital under the care of the general surgical team for observation and pain management. The following day there was a ward round involving the consultant surgeon, surgical registrar, and surgical interns. The surgeon was not informed of the abnormal blood test results and did not ask the team members present about the investigations that had been performed.

Two days later, Mr J reported increasing groin pain and so, was referred to the Acute Pain Service as well as being reviewed by the surgical registrar who arranged a CT scan. The scan showed a muscle strain in the left groin and significant right flank bruising.

The summary noted a raised WCC but not the raised CRP and only the investigations from the emergency department were attached.

An elevated temperature was noted that day as well. Inflammatory markers were repeated at the time demonstrating a further rise in CRP (556mg/L) and WCC (18 $\times 10^9/L$). Blood cultures were not taken. The surgical interns and surgical registrar were aware of the results but did not document them in the medical record or communicate the abnormalities to the consultant surgeon.

Mr J was discharged by the consultant surgeon the following day. The discharge summary stated 'soft tissue injury' secondary to a quad bike crash with a plan for general practitioner (GP) follow up one week later. The summary noted a raised WCC but not the raised CRP and only the investigations from the emergency department were attached.

Three days post-discharge Mr J presented to his GP, who had by that time received the discharge summary. Mr J reported that he had increasing pain and was unable to sit as a result. Mr J was prescribed additional analgesia, including oxycodone (a strong opioid analgesic medication), and a plan was made for review in a few days. The next day Mr J re-presented to hospital with severe septicaemia. Despite surgery and intensive care unit management, Mr J died three days later.

The surgical registrar indicated that he had looked up the results himself rather than the results being conveyed to him by the surgical interns.

PATHOLOGY

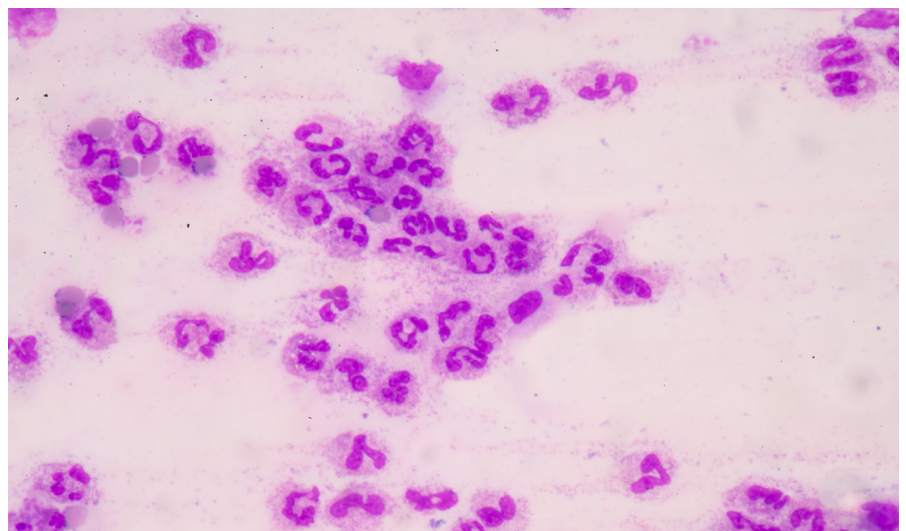
The cause of death was multi-system organ failure due to overwhelming Staphylococcus Aureus septicaemia. The primary source of infection was the right elbow with seeding occurring in a rectus sheath haematoma and secondary acute pericarditis.

INVESTIGATION

Mr J's death was reported to the coroner. The focus of the coroner's investigation was Mr J's first hospital admission, in particular, the recognition of the pathology results that potentially indicated infection, the communication of the results up the medical hierarchy, the supervision of junior staff, and the decision to discharge Mr J.

The coronial investigation proceeded to an inquest and statements were received from Mr J's GP, the Chief Medical Officer of the hospital, the surgical registrar and consultant surgeon. Expert witness statements were obtained from a surgical consultant and infectious diseases specialist.

During the coronial investigation, the surgical registrar acknowledged that he was aware of the rising CRP and WCC, but had felt that the blood results were in keeping with recent active gout and the CT scan findings of soft tissue injury. The surgical registrar indicated that he had looked up the results himself rather than the results being conveyed to him by the surgical interns. He stated that the surgical interns later told him that they were aware of the rising CRP and WCC, but did not convey the results to him as they were unsure of the significance of the results. In regards to Mr J's febrile episode, the surgical registrar reflected that looking back at the episode he would have performed blood cultures. The surgical registrar acknowledged that he should have told the consultant surgeon about the abnormal blood results. It was explained that the abnormal results were not entered into the medical record as they were electronically available on the hospital's computer pathology system.



The consultant surgeon stated that he would not have expected a CRP to have been checked in the ED following simple trauma and it was unclear why it had been requested. However, as the CRP was done, and was significantly elevated on admission, he would have expected to be made aware of the result. He indicated that if he knew of the raised inflammatory markers he would have appreciated that this was not a case of simple trauma. He stated that this knowledge would have altered his clinical assessment of Mr J, leading at least to the commencement of intravenous antibiotics.

Nevertheless, the admitting team were focused on potential trauma from the quad bike crash with little or no focus on reasons for Mr J's failure to improve during his admission.

The inquest heard expert evidence from an infectious diseases specialist who stated that elevated CRP levels are strongly associated with infection, but can also occur due to other causes of inflammation including severe trauma, tissue infarction and acute gout. It was noted that when fever, rising WCC and rising CRP are present, sepsis should be excluded. In Mr J's case, diagnostic imaging and urine cultures were performed, but blood cultures were not collected when he was febrile.

CORONER'S FINDINGS

The coroner found that the interns and registrar were aware of an elevated and rising CRP and WCC. However, the significance of these results as possibly indicating a developing bacterial infection were not recognised. Subsequently, these abnormal results were not communicated to the surgeon and were not entered into the medical record. The coroner did remark that the surgeon should have proactively made enquires as to what investigations were performed.

It was noted that while Mr J's condition did not improve during the first admission, there were not strong clinical signs of infection. Nevertheless, the admitting team were focused on potential trauma from the quad bike crash with little or no focus on reasons for Mr J's failure to improve during his admission.

The coroner concluded that if the surgeon had been informed of the abnormal blood results, intravenous antibiotics would have been commenced and there was a good prospect that Mr J would have survived.

In response to this case, the hospital made changes to how pathology results are communicated. Abnormal results are now flagged electronically and all significantly abnormal results, as determined by a pathologist, are phoned to the registrar looking after the patient. The hospital also introduced changes to improve clinical handover (using the standardised ISBAR format) and committed to running weekly clinical case reviews for junior staff.

AUTHOR'S COMMENTS

This case demonstrates how errors of communication and teamwork can lead to significant patient harm. The rising inflammatory markers were not communicated from the intern to registrar or from registrar to consultant. This resulted in a missed opportunity to recognise the developing sepsis and to conduct a thorough investigation and commence potentially life-saving treatment. In most circumstances, when a doctor orders an investigation, they must take on the responsibility of following up on the results.

All team members have a central role in ensuring safe patient care through the adequate documentation and communication of results.

Junior staff, including interns, can reasonably be expected to recognise derangements of basic investigations such as full blood examinations, biochemistry and chest x-rays. Junior staff may sometimes lack the experience and knowledge to know how an abnormal result should be acted upon. In these situations, the abnormal result should then be discussed with senior members of the team so the clinical significance of the result can be addressed.

Junior doctors face busy and challenging jobs and at times it can be difficult to keep track of each patient's progress and investigation results.

While the consultant is the leader of the team and should proactively ask about a patient's progress and investigations, the responsibility for chasing and communicating investigation results within a hospital team ultimately rests with the medical practitioner who ordered the test. The optimisation of electronic systems may help to improve the identification and communication of abnormal results. Abnormal results should also be documented in the medical record, which is the comprehensive record of the patient's progress and inpatient care. All team members have a central role in ensuring safe patient care through the adequate documentation and communication of results.

KEYWORDS

Communication, inflammatory markers, trauma, team, sepsis, junior doctor

FURTHER READING

Reeves, G. C reactive protein. *Australian Prescriber* 2007; 30: 74-6.

Weller J, Boyd M, Cumin D. Teams, tribes and patient safety: overcoming barriers to effective teamwork in healthcare *Postgrad Med J* 2014; 90: 149-154. Available from: <http://pmj.bmj.com/content/90/1061/149.info>.

Rider, E. Twelve strategies for effective communication and collaboration in medical teams. *BMJ* 2002; 325: S45.

Porteous JM, Stewart-Wynne EG, Connolly M, Crommelin PF. iSoBAR — a concept and handover checklist: The National Clinical Handover Initiative. *Med J Aust* 2009; 190 (11 Suppl): S152-S156.

The following question is commonly found on MET call forms: "could this be sepsis?" with appropriate actions to undertake if the answer is yes. See: <https://sepsistrust.org/the-importance-of-asking-could-it-be-sepsis/>.

Reference to EMST principles - early administration of broad-spectrum first-generation cephalosporins for patients with contaminated wounds, and tetanus booster if vaccination status not up-to-date. See: https://www.surgeons.org/media/17053260/doc_2012-09-14_guidelines_for_a_structured_approach_to_the_provision_of_optimal_trauma_care.pdf

<https://www.georgeinstitute.org.au/sites/default/files/documents/stopping-sepsis-national-action-plan.pdf>.

<https://www.bettercare.vic.gov.au/innovation-fund/sepsis-scaling>.

COULD THIS BE SEPSIS? AN IMPORTANT QUESTION

Professor Karin Thursky

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Clinical Lead of the 'Think Sepsis. Act Fast' Collaboration for Better Care Victoria
Royal Melbourne Hospital at the Doherty Institute

The case of Mr J illustrates how sepsis may be missed or overlooked when patients present with multiple co-morbidities and pre-existing diagnoses. A grossly elevated CRP, rising WCC and febrile episode failed to trigger a consideration of infection by the general practitioner, junior medical staff, surgical registrars, consultant surgeon, and the emergency department. This unfortunately led to the patient's death seven days later from disseminated *Staphylococcus aureus* infection likely originating from an infected bursa.

Improving sepsis awareness in the community and in healthcare settings has become a key focus of national and international programs. An estimated 18,000 Australian adults are treated in an Intensive Care Unit (ICU) for sepsis annually, and over one quarter of these patients, almost 5,000 people, will die. On 16 November 2017, The George Institute for Global Health and the Australian Sepsis Network convened a policy roundtable with key stakeholders to address the pressing need to improve the awareness, prevention, and treatment of sepsis in Australia. The resulting national action plan for sepsis highlighted the reality that sepsis does not have a 'natural advocate' within the hospital system, and that patients may present in all clinical areas, often in the setting of other risk factors such as surgery, cancer treatment, and trauma. A lack of an integrated and coordinated approach to the recognition, resuscitation and early referral to the ICU inevitably leads to a delay and poor outcome as in the case of Mr J.

As clinicians, we are often presented with patients who have multiple co-morbidities, or other medical issues that may influence our diagnostic thought processes. In patients who are unwell enough to present to a hospital, who may or may not have symptoms and signs of an infection, the most important question to consider is "could this be sepsis?" A common misconception is that sepsis requires the presence of fever, which in fact is absent in up to 30% of severe sepsis.

Another major barrier to recognition of sepsis is the apparent knowledge gap of clinicians of early warning criteria for sepsis, partly contributed to by the fact that these criteria are not currently routinely incorporated into Australian healthcare systems.

Clinical pathways for sepsis such as the 'Think Sepsis. Act Fast' currently being implemented across Victorian Hospitals, and the 'Sepsis Kills' pathway in New South Wales use this question together with a combination of early warning criteria to prompt consideration of sepsis. So, if the answer is 'yes', this triggers the initiation (by nursing and medical staff) of a bundle of care which includes oxygen, blood cultures prior to antibiotic therapy, timely administration of intravenous antibiotics (within 60 minutes), venous blood lactate, and rapid fluid resuscitation if required. These programs have been shown to improve indicators of patient outcomes including ICU admission, length of stay and in-hospital mortality [1,2].

Infections, most often bacterial, were found in approximately 80 percent of patients with CRP values in excess of 100 mg/L and in 88 to 94 percent of patients with values over 500 mg/L.

In the case of Mr J, there appears to have been a lack of awareness, or failure to appreciate the significance of a markedly elevated CRP result (>300 in this case). CRP is an acute phase reactant produced by hepatocytes. One of its key functions is to bind phosphocholine; a phospholipid found in foreign pathogens and damaged cells. CRP permits recognition of these foreign cells (such as bacteria) and leads to activation of the complement system, phagocytic cells, and other effector cells of inflammation [3]. While CRP cannot distinguish infection from other causes of acute and chronic inflammation such as infection, inflammation, allergy, trauma, necrosis and malignancy, markedly elevated levels of CRP are strongly associated with infection. Infections, most often bacterial, were found in approximately 80 percent of patients with CRP values in excess of 100 mg/L and in 88 to 94 percent of patients with values over 500 mg/L [4,5].

A full sepsis workup is indicated with a very high CRP. This would include at least two sets of blood cultures, urinary microscopy and culture, and culture of other sites as indicated by the presenting signs and symptoms. Inflamed and painful joints should be aspirated and the fluid examined and cultured. Imaging should be targeted at potential sites. A full blood count which demonstrates neutrophilia (>12 x10⁹/L) or neutropenia (<4 x10⁹/L, including a left shift) is indicative of infection. Lactate (usually done from venous blood in an arterial blood gas syringe) is a marker of tissue hypoperfusion and is elevated (>2 mmol/l) in severe sepsis. Serial CRPs are useful in the monitoring of infection treatment. Equally, a rising CRP may indicate failure of current therapy (including localised infections that need surgical drainage).

Sepsis as a clinical syndrome has traditionally been the research domain of the emergency and intensive care units. Many of the international guidelines for management have been developed for this setting rather than for inpatient wards or in general practice. It is the right time to establish a standardised approach to the recognition and management of sepsis, and a national action plan with implementation of community awareness and clinical pathways for sepsis targeted at primary and secondary health care providers.

FURTHER READING

1. Burrell AR, McLaws ML, Fullick M, Sullivan RB, Sindhusake D. SEPSIS KILLS: early intervention saves lives. *Med J Aust* 2016; 204(2): 73.
2. Thursky K, et al. Implementation of a whole of hospital sepsis clinical pathway in a cancer hospital: impact on sepsis management, outcomes and costs. *BMJ Open Qual.* 2018; 7(3): e000355.
3. Marnell L, Mold C, Du Clos TW. C-reactive protein: ligands, receptors and role in inflammation. *Clin Immunol* 2005; 117:104.
4. Vanderschueren S, Deeren D, Knockaert DC, et al. Extremely elevated C-reactive protein. *Eur J Intern Med* 2006; 17: 430.
5. Le Gall C, Désidéri-Vaillant C, Nicolas X. Significations of extremely elevated C-reactive protein: about 91 cases in a French hospital center. *Pathol Biol* 2011; 59:319.

COMMUNICATION IN MEDICAL TEAMS

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Professional communication and team collaboration

The care of patients, particularly co-morbidly unwell older patients, is complex and often involves much more than just the presenting complaint. In the teaching hospital environment, the patient is cared for by a team of doctors. The treating consultant holds ultimate responsibility for the care of a patient and consultants want to be kept informed of problems that arise in their patients.

Quality of care in clinical training depends in part on communication between trainees and supervisors. The consultant is not always present, thus decisions relating to the patient often fall to the registrar. Important decisions should be made in collaboration with the consultant. Patient safety should always come first. An effective junior doctor is able to recognise the limits of their own capabilities as a doctor and ask for help when required. Equally, an effective consultant provides an environment where all members of the team feel valued and comfortable expressing their questions and queries in regard to patient care. Creating a supportive culture not only promotes patient safety but supports education of the junior staff. Unfortunately, junior staff do not always escalate clinical concerns to senior staff.

A study was undertaken at a large tertiary centre in Melbourne to understand the reasons why medical trainees do not always escalate concerns to senior staff. The major barriers identified were perceived issues accessing senior staff; lack of situational awareness and competing

demands; lack of clarity regarding who to contact (who is accountable for the patient's care); the perception that junior trainees are not always able to identify when a patient requires escalation; and, concern about negative responses from more senior staff [1].

A study by Shearer et al found the main reasons for non-initiation of a call for help centred on clinicians feeling that they either should be able to manage patients by themselves on the ward, or that they could manage the patients with no additional expertise required [2]. Trainees consider not only the clinical implications but also professional credibility when requesting support from clinical supervisors [3]. Patient safety could be improved by explicitly addressing the link between credibility and asking for help. We need to make it okay to say 'I don't know'. How and why has a medical training culture evolved in which asking for help can be so difficult?

There are many 'red flags' that clinical staff need to be cognisant of when caring for post-trauma or post-surgical patients.

We need to create a culture that promotes timely discussions of trainees' clinical concerns with senior medical staff. Consultants were all once junior medical staff, and likely had the same questions and concerns regarding patient care. Therefore, they should be well-placed to understand the role of a junior doctor and support their clinical decision-making.

This case also highlights the importance of the discharge summary. A discharge summary is a handover from the hospital staff to community health care providers who will continue the ongoing care of the patient. It needs to include not only the presenting complaint along with the presentation investigations, but importantly also the status of the patient at discharge and the investigation results at the time of discharge, if not normal, to allow the community health providers to provide ongoing care and follow up.

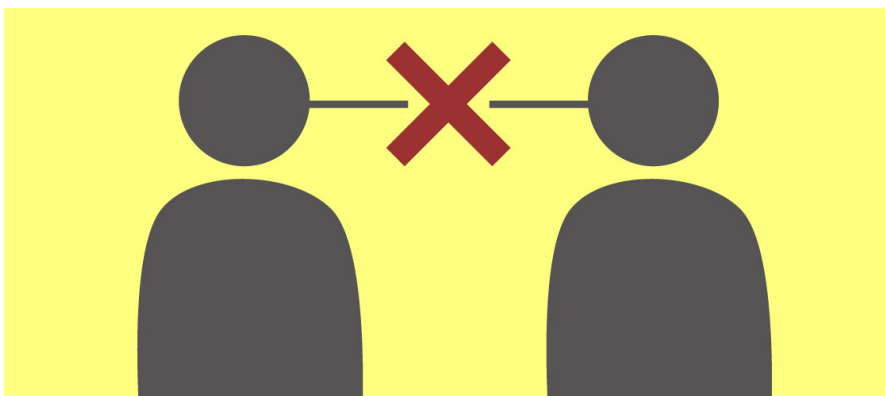
Recognising 'Red flags'

There are many 'red flags' that clinical staff need to be cognisant of when caring for post-trauma or post-surgical patients. These may be clinical symptoms or abnormal results that then prompt further investigation and management. Serious underlying pathology needs to be excluded. This list is not exhaustive, but every junior doctor needs to have an approach toward each of the following symptoms and signs: uncontrolled pain, fever, haemorrhage, nausea and vomiting, abdominal distension and ileus, shortness of breath, delirium, urinary retention and constipation.

If abnormalities are identified but not well understood by the junior staff in a team, they should always seek clarification from senior staff.

Abnormal observations that require further investigation include fever, tachycardia, hypotension and hypoxia. All abnormal investigation results require consideration. Common issues include: anaemia, renal impairment, liver dysfunction, raised inflammatory markers and elevated cardiac biomarkers. There will be times when further investigation is not appropriate but these situations must be agreed upon by all the members of the team, often after consultation with the patient and their family.

If abnormalities are identified but not well understood by the junior staff in a team, they should always seek clarification from senior staff. Consultants are ultimately responsible for patient care, they want to know when something is abnormal.



In this case, an extremely elevated C-reactive protein, raised white cell count and fever were the particular issues to which insufficient attention was given.

As a junior doctor, you may sometimes feel that you are reduced to paperwork tasks alone, but you have a very important role in patient care, ensuring investigations are ordered, and results are followed up and then conveyed to all members of the treating team. Communication plays a central role in the teaching hospital setting. Consultants must create a team culture that promotes effective communication.

*Remember
your invaluable role in
conveying results to, and
asking questions of the
members of your team.*

All doctors must take responsibility for any test that they order. Each teaching hospital unit requires an organised system to ensure test results are followed up, particularly when results are delayed. This is especially important given the rotational nature of junior medical staff positions. These should ideally be supported by digital information technology which is available in varying degrees in different organisations. If not, a simple list on paper, or secure electronic document should be available to all members of the team. Consultants should expect to be notified as abnormalities are identified. It is reasonable that all significantly abnormal investigation results are documented in the medical record as, along with the history and examination, they form an important part of patient assessment, and influence management plans. Significantly abnormal results should form part of the discussion that takes place during the ward round.

There is increasing complexity amongst the population admitted to hospital. The population is ageing with increasing comorbidity. Most hospital presentations will involve more than just the presenting complaint, and often care will be required by more than just one medical team. Thus, good communication between all caregivers is imperative. Hospitals and consultants must create a culture that supports this at all levels. Be alert to 'Red Flags' and use your skills as a doctor to investigate and manage these issues.

Remember your invaluable role in conveying results to, and asking questions of the members of your team. Do not be afraid to call on your seniors to guide your patient care and assist with your education.

FURTHER READING

1. Kelly C, et al. Failure to Escalate: what stops junior doctors asking for help when they need it? *APJHM* 2014; 9:3.
2. Shearer B, et al. What stops hospital clinical staff from following protocols? An analysis of the incidence and factors behind the failure of bedside clinical staff to activate the rapid response system in a multi-campus Australian metropolitan healthcare service. *BMJ Qual Saf* 2012; 21: 569-575.
3. Kennedy TJ, et al. Preserving professional credibility: grounded theory study of medical trainees' requests for clinical support. *BMJ* 2009; 338: b128.

COMMENTS FROM OUR PEERS

"As a junior doctor, I have a rule: If I ask myself whether I should call my consultant about a patient, that means I should."

"To check pathology test results for my patients, I set up a 'protected time', akin to nurses doing medication rounds, so as to not be disturbed and avoid missing anything important."

"I think the 'no question too silly' approach for juniors and seniors alike is so necessary to an effective team environment. View fellow health professionals as comrades rather than a rank or specialty, ask for help and give it willingly where you can."

"This case highlights the importance of using our own clinical judgement and questioning a diagnosis that doesn't seem to fit. As a junior doctor, I often felt I didn't have enough knowledge or experience to question a diagnosis, but a fresh pair of eyes can be just what is needed!"

"Being in a situation where you don't want to ask your consultant for help because you don't fully understand the question rings all too true. As junior doctors, we crave our seniors' approval and fear being told we're not yet capable of the task we're being asked to do. It is often much easier to omit things rather than acknowledge your own knowledge deficits. This is made even more difficult if you have a problematic relationship with your consultant."