Future leaders Communiqué

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Victorian Institute of Forensic Medicine
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GUEST EDITORIAL

Dr Joey Lam

It is inherent in our work as doctors that we work in teams of clinicians, allied health professionals, and members from other sectors. One person rarely makes clinical decisions alone. Delivering the best medical and surgical care is a team sport, and when the team works well it has been shown to result in a beneficial impact on patient safety, satisfaction, quality of outcomes and decreasing length of stay. However, teams can make poor decisions that lead to adverse events. In this issue of the Future Leaders Communiqué, we explore why and how teams make poor decisions and if there are any lessons, for junior doctors, to improve teamwork and decision-making skills at the bedside.

Groupthink, a social psychology principle, can be used to help analyse the pitfalls of team decisions. Irving Janis, a psychologist, first described groupthink as *'... a mode of thinking that people engage in when they are deeply involved in a cohesive in-group, when the members' strivings for unanimity override their motivation to realistically appraise alternative courses of action…'*. Janis drew most of his principles from his studies of various political disasters by US presidents; President JF Kennedy and the Bay of Pigs in Cuba in 1961, President Truman's approach to the Korean War, and President Nixon in the Watergate scandal.

Janis suggests that there are three key components that lead to groupthink. He refers to an overestimation of the group's importance, closed-mindedness, and pressures to create uniformity. In turn, this is made worse when there is high cohesiveness in the team, faults in the team such as lack of impartial leadership, or if there are both stressful internal and external characteristics of the situation. Groupthink enables non-evidence based and poor organisational practice to continue and this may increase risk in the clinical setting.

We are more likely to trust our colleagues when their clinical reasoning is similar to our own, and we are more susceptible to groupthink when working with people we trust. As social animals, there is a tendency for us all to reach a consensus than to stand correct as an outlier. That is, we are not readily encouraged to express minority or unpopular views as this can lead to a sense of alienation and being disliked. Reaching a group consensus however, can give a group a false sense of security.

Some day-to-day examples of groupthink in our workplace include: copying previous doctors' prescriptions without critical analysis; prescribing medications based on nurses' requests without undertaking our own clinical assessment of the patient; performing focused examinations that have been directed by information provided by other clinicians, instead of performing thorough examinations based on our own history-taking.

The first step in combating the risks of groupthink is recognising that it exists. Individuals within teams need to be able to communicate openly, challenge ideas and carefully consider all aspects of the patient's management. Teamwork is essential to providing safe, quality care to patients in hospitals. Junior doctors must learn to work in teams, but they must also feel emboldened to practice self-determination in their decision-making for their patients.

EDITORIAL

Welcome to the sixth issue of the Future Leaders Communiqué. Our guest editor for this issue is Dr Joey Lam; a doctor undertaking physician training in rural and regional Victoria. Originally trained as a physiotherapist in acute aged care and rehabilitative medicine, Joey continues to dedicate her career to learning and exploring ways to deliver better health outcomes and care for older people.

Aside from her work here with the Future Leaders Communiqué, she is an advocate for the Vietnamese-Australian community with a particular focus on issues relating to social support and welfare of the aged. She is also a keen public speaker and regularly provides health promotion and education sessions to at-risk groups such as recent migrants and the elderly.

This issue addresses the multiple clinical challenges we see in managing patients over a long period of time with multiple different individuals and teams. We are fortunate to have three expert commentaries in this issue:

- Dr McDonough, an addiction specialist, who explores the principles of Quality Use of Medicines;
- Dr Shelly Jeffcott, a psychologist and Human Factors expert, who writes about 'groupthink'; and
- Natali Jokanovic, a clinical pharmacist, who looks at pain management in the older person.

FURTHER READING FOR EXPERT COMMENTARIES

Epstein N. Multidisciplinary in-hospital teams improve patient outcomes: A review. *Surg Neurol Int* 2014; 5 (suppl 7); S 295-S303.

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Mailoo V. Common sense or cognitive bias and groupthink: does it belong in our clinical reasoning? *Br J Gen Pract* 2015; 65 (630):27.

Braithwaite J. The medical miracles delusion. *J R Soc Med* 2014; 107(3): 92-93.

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ACKNOWLEDGEMENTS

This initiative has been made possible by collaboration with the Department of Forensic Medicine (DFM), Monash University, Victorian Institute of Forensic Medicine (VIFM) and Victorian Managed Insurance Authority (VMIA), La Trobe University, Dementia Training Centres, Department of Health and Human Services, and the Postgraduate Medical Council of Victoria.

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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CASE *IT'S ALL TOO CONFUSING*

Case Number:
Canada Ontario GLTCRC-2013-12

Case Précis Author:
Dr Joey Lam BApplSci, MB, BS
Basic Physician Trainee
Western Health

CLINICAL SUMMARY

Mrs D was an 82-year-old widow who lived alone and independently in a retirement village. She had a past medical history of insulin-requiring diabetes mellitus, coronary artery disease, hypertension, and visual impairment.

Her family noticed that she had not been herself for a few weeks, describing confusion, weakness and loss of appetite. They brought her to the hospital on September 7th, 2009, when she developed a fever and her confusion had worsened to the extent where she had smeared faeces on the walls of her house.

On examination in the emergency department, Mrs D was febrile (temperature of 38 degrees celcius) with multiple leg ulcers. She was subsequently admitted to the hospital under the care of a general medical team.

Various junior doctors would be the first point of contact for any day-to-day concerns regarding her care

The team consisted of multiple doctors of varying levels in their training and would change multiple times throughout Mrs D's care. Various junior doctors would be the first point of contact for any day-to-day concerns regarding her care. She was also attended to by a team of allied health professionals including physiotherapists.

Mrs D was given a provisional diagnosis of delirium most likely due to an infection that had developed in her leg ulcers, on a possible background of undiagnosed dementia. She was commenced on culture-guided antibiotic therapy.

In the weeks that followed, despite antibiotics, the treating team, nursing and allied health staff noted that Mrs D was becoming more agitated and confused, and required more assistance with her mobility and attendance to self care. Mrs D also developed urinary retention, constipation, and had an increasing number of falls.

In early October 2009, despite being opioid naive, the team commenced Mrs D on a fentanyl patch (25 micrograms) every 72 hours.

The medical team were concerned that she may have an underlying neurological cause to her worsening delirium. A CT scan of her brain was ordered, however there were no significant signs to suggest a neurological component to her confusion and functional decline.

Over the next few months, the prevailing cause for Mrs D's clinical picture would be the poorly controlled pain from her leg ulcers. Initially, Mrs D's pain was treated with regular paracetamol. However, her pain did not seem to improve over a course of weeks. In early October 2009, despite being opioid naive, the team commenced Mrs D on a fentanyl patch (25 micrograms) every 72 hours. It was unclear whether there was any dissent from the medical team or ward pharmacist to suggest alternatives for analgesia for Mrs D.

By January 2010, Mrs D's cultures of urine and leg ulcers were clear but her mental and physical function continued to decline. Nursing staff documented that she was swinging between being very agitated to exceedingly drowsy. The physiotherapist noted that Mrs D was requiring the assistance of 1-2 people at times to mobilise. Despite these concerns, the treating team still persisted in treating Mrs D's pain. There were no further investigations to elicit the source of pain. There was no consideration at this point given to reconciling Mrs D's medications. Haloperidol was used at times to control her agitation. The team increased her fentanyl patch to 100 micrograms every 72 hours.

Over the next few days, the nursing staff reported that Mrs D was becoming increasingly obtunded with intermittent 'twitching'. She now required 2-3 staff members to mobilise her and attend to her self care. Her bowel motions were becoming difficult; she would not open her bowels for up to five days at times. Despite ongoing opioid use, the medical team only charted 'as required' aperients to address this issue.

Mrs D continued to decline and the treating team still assumed that this was caused by her leg ulcers so they proceeded to increase her fentanyl dose. By March 12th, 2010, Mrs D was on 200 microgram fentanyl patches every 72 hours.

On March 20th, 2010, Mrs D was found unresponsive by nursing staff during routine night checks and she was declared dead at 0310 hours.

PATHOLOGY

An autopsy was completed and the cause of death was fentanyl overdose. Specifically, the post mortem report found:

1. A blood fentanyl concentration of 32ng/ml (a potentially fatal level is reported as >3ng/mL) associated with fentanyl patch sedation
2. Accelerated autolysis and generalised bacterial colonization
3. Stasis dermatitis of her lower legs with evidence of a healed ulcer on the left lower leg
4. Faecal impaction (215g mass of impacted, constipated faeces distending the lower rectum) with partial chronic bowel obstruction
5. A single kernel of corn in her right main bronchus
6. Early aspiration pneumonia
7. An old inferior myocardial infarction with markedly calcified coronary arteries

INVESTIGATION

Mrs D's case was referred for review by the Geriatric and Long Term Care Review Committee (GLTCRC) as there were concerns from the family, the investigating coroner, and the regional supervising coroner regarding the care Mrs D received in hospital prior to her death.

The more appropriate response to Mrs D's ongoing agitation should have been to decrease, rather than increase, the fentanyl dose.

The GLTCRC conducted its investigation by reviewing the progress notes and other records during Mrs D's admission as well as the post mortem report (including toxicology) and coroner's investigation statement.

The GLTCRC believed that there lacked a clear diagnosis to justify the use of analgesia for Mrs D during her hospital admission. The treating team's workup had failed to establish a specific aetiology for Mrs D's presumed painful legs.

The GLTCRC believed that a key part of Mrs D's delirium was due to the side effects of the narcotics that had been prescribed to her.

Mrs D was narcotic naïve and elderly, and as such, transdermal fentanyl should not have been prescribed.

The more appropriate response to Mrs D's ongoing agitation should have been to decrease, rather than increase, the fentanyl dose.

As for her constipation, regular aperients should have been charted rather than 'as required'.

Finally, there was a lack of a cohesive plan to share information and problem solve. Mrs D's delirium and its potentiators appeared to go unnoticed by the team. The commitee highlighted that an interprofessional approach would have been better equipped to notice the issues sooner as well as implement an appropriate plan in a timely manner.

CORONER'S FINDINGS

After taking the assessment of the GLTCRC into consideration the coroner made the following recommendations to health care providers involved in the acute care of patients:

1. Acute delirium is a very common syndrome in hospitalised adults and inter-professional clinical protocols should be in place that include both non-pharmacological and pharmacological strategies.
2. Physicians that prescribe for hospitalised elderly patients with delirium should give family literature regarding the pharmacological management of delirium.
3. Physicians prescribing and administering narcotics to the elderly should follow standard practice and guidelines for the recognition and management of narcotic induced side effects.
4. Fentanyl transdermal patches should not be prescribed as a first-line narcotic in a narcotic naïve patient.
5. Regular team meetings should occur to discuss and document care for all patients.

AUTHOR'S COMMENTS

Mrs D had a team of medical, nursing and allied health involved in the provision of her care. Yet despite the amount of expertise made available to her, the management plan seemed to have been followed without critical review. The factors that contributed to the chain of events leading to Mrs D's death are not unique to this case. Social psychologists would describe these factors as certain dynamics at play that blindsided the treating team.

A healthcare team, such as ward-based ones like the team in Mrs D's case, are usually multidisciplinary. They comprise of five or six people each of a different dicipline. One team that makes the decisions is seen as the most efficient and productive way to manage a patient's care. However, it may lend itself to the group overestimating their collective ability and becoming closed-minded by seeking to remain uniform and failing to challenge each other. Also, a team that works together day in, day out may develop a 'sameness' or singleminded approach in response to coping with the pace and stress of managing workloads in hospitals. This in turn increases the risk that a team is prone to groupthink.

However, there are some strategies that a team can implement to minimise the effects of groupthink. These include:

1. Reframe disagreement as a necessary process and foster open discussion within the team.
2. Establish group norms that indicate conflict and speaking one's mind is expected.
3. Avoid quickly criticizing other ideas and insulting other team members but designate critical evaluators of decisions and plans.
4. Encourage the group to get to the heart of the problem and make the best decision possible.
5. Confront others with an encouraging spirit and eye toward effective collaboration.

Therefore, by being mindful of how much groupthink can influence a decision, and incorporating these simple strategies into the workplace, misguided decision-making can be minimised.

FURTHER READING

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KEYWORDS

Groupthink, team work, communication, decision making, fentanyl, ulcers

OUTSMARTING GROUPTHINK

Dr Shelly Jeffcott BSc Hons. (York, Psych.), PhD (Glasgow, Comp Sci.)

Human Factors Specialist
Strategy Implementation & Quality Improvement Manager, Scottish Ambulance Service

Groupthink is a psychological phenomenon that was first talked about over 40 years ago. It affects how groups make decisions and crucially how good those decisions are. It is a powerful (but relatively unknown) force that can impact on frontline clinicians in healthcare settings. But why is it so important? Well because it can mean that patient safety is compromised by decisions about diagnosis or treatment that are not challenged or optimised.

There were many caregivers who were part of keeping Mrs D safe. Could one of them have questioned the group consensus or the decision made before they were involved in looking after her? The simple answer is yes!

Everyone in healthcare is there to 'first do no harm' but the stress, fatigue and cognitive workload that staff endure - day in and day out - can take its toll.

But it would be easy to look back with hindsight and attribution biases and think about any one individual who did not speak up or monitor the patient closely enough. The reality is that this isn't about one person, because there were so many people who could have "caught" the error. So this is about something else which is much bigger than you or I and not the fault of any one individual.

Everyone in healthcare is there to 'first do no harm' but the stress, fatigue and cognitive workload that staff endure - day in and day out - can take its toll. The feeling of belonging to a group and having an established trust and rapport is critical to us being able to effectively do our jobs, with mutual support and open communication. This is especially vital and can be even more difficult to establish across groups (i.e. between professions and settings).

It makes sense then that in this context, crucial things like candor, conflict and challenge can sometimes take a back seat, for example: "I need to maintain stable relationships to keep the flow of information coming to me and my peer support networks intact"; "These things are critical to me doing my job well"; "Why would I rock that boat?"

Clinicians often don't even think to challenge or scrutinise others' decision making. They have too much respect, in most cases, and are too busy to question decisions anyway.

Persistent unwillingness to disrupt group harmony and dynamics has become accepted as a natural and necessary feature of healthcare teams. But is there another way? Can we find a balance and introduce challenge - with professional courtesy - to create a different culture where we can reach better decisions, innovation and transparency. Let's outsmart Groupthink! If we try, we just might.

The take home message for individuals is to always remind yourself not to take as gospel what someone else tells you about a patient, particularly if your observation, assessment or interaction with that person throws up signs that might lead you in a different decision-making direction.

My last word would be that getting to know Mrs D better or talking to people who loved her, i.e. the friends and family who visited, and/or the GP or residential care staff who knew her, may have uncovered information that was previously unknown and could have shed new light on previously upheld facts.

Sadly, we can no longer help Mrs D but there are lessons that you can take with you to help keep the next patient under your care safe.

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TAKE CARE IN THE OPIOID NAÏVE

Natali Jokanovic BPharm (Hons)

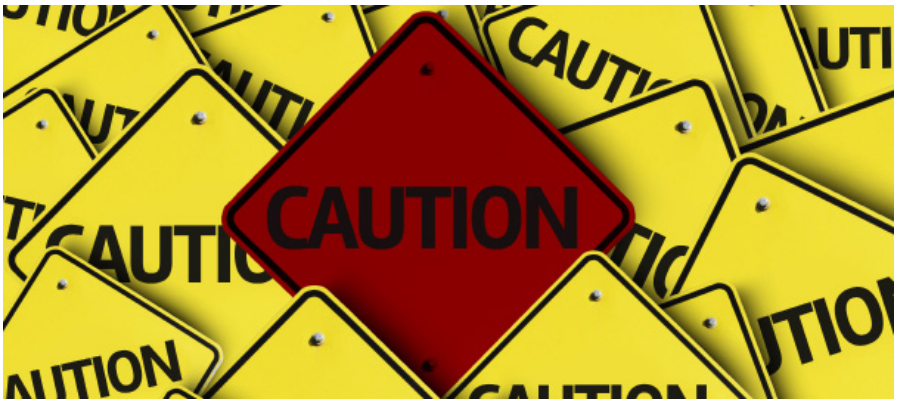
Pharmacist, Alfred Health and PhD Candidate, Centre for Medicine Use and Safety, Faculty of Pharmacy and Pharmaceutical Sciences, Monash University

Pain management in the older person is complex and multifactorial in nature and requires a multidisciplinary approach. The case in this edition of a fentanyl overdose in an opioid-naïve elderly patient (Mrs D) highlights the importance of appropriate analgesia selection and recognition of opioid-induced adverse effects.

Despite ongoing warnings and safety alerts, inappropriate transdermal fentanyl use in the opioid-naïve continues to occur across all care settings. Transdermal fentanyl should never be administered to an opioid-naïve patient and is reserved only for the management of chronic pain in opioid-tolerant individuals. Administration in the opioid-naïve may result in fatal respiratory depression, as in the tragic case reported in this edition. The slow onset of action and long duration of action, even beyond removal of the patch, makes this choice of analgesia particularly unsuitable for acute pain.

We are fortunate to have an ever-expanding array of analgesia available to manage a multitude of pain conditions. The choice of appropriate analgesia will depend on a number of factors including pain type, severity, tolerability and patient preference. Should a trial of an opioid be deemed appropriate in the older opioid-naïve patient, always apply the familiar adage “start low and go slow” for dosing. Older people are particularly susceptible to opioid-related adverse effects including delirium, sedation, respiratory depression and falls, so close monitoring and recognition of the signs of opioid toxicity is essential.

In the older opioid-naïve patient low doses of an opioid are commenced initially in both acute and chronic pain presentations. Guidelines vary however, doses of 25% to 50% of the suggested starting adult dose are commonly chosen. In addition to age, impaired renal function and the risk of toxic metabolite accumulation may also necessitate the use of low doses or a switch to an alternative opioid such as oxycodone.



Depending on the severity of pain, immediate release oxycodone or parenteral opioids, commonly morphine, are often chosen to manage acute pain. Similar principles are applied in the case of chronic pain in the older opioid-naïve patient. Low doses of an immediate-release short-acting oral opioid such as morphine or oxycodone may initially be commenced and if tolerated, converted to an extended-release formulation and slowly titrated to response. It should be noted that hydromorphone, although reported to be less likely to contribute to delirium, is five times more potent than morphine and is often reserved for clinicians experienced with its use or pain specialists.

It must be kept in mind that one size does not fit all when dosing and requirements will vary from person to person. Opioids should be titrated slowly to response and carefully monitored following each dose change. Little to no response after an appropriate time period or intolerable adverse effects should always prompt a re-evaluation rather than ongoing escalation in dosing. This fundamental step was crucially missed in Mrs D’s case.

The failure to investigate all potential causes of Mrs D’s ongoing agitation and delirium, incorrectly assumed to be due to dementia, lead to the signs of opioid toxicity being ignored. Delirium is itself multifactorial and the contribution of medications including opioids should not be overlooked.

The commencement of a fentanyl patch for Mrs D and subsequent increasing doses contributed to a number of preventable or manageable adverse effects. During her long hospital admission, she experienced delirium, sedation, urinary retention, constipation and an increasing number of falls.

A large number of these may have been prevented or alleviated had an alternative opioid been prescribed or signs of ongoing opioid toxicity been recognised. Despite being a commonly known side effect of opioids, Mrs D’s constipation was also left untreated, contributing to her delirium. Regular laxatives, such as docusate and senna, should be prescribed on initiation of opioids for chronic pain.

The tragic case of Mrs D highlights the challenging and individualised nature of pain management in the older person and the need for a multidisciplinary team approach. This is emphasised by the formation of specialist multidisciplinary pain teams and clinics within hospital inpatient and outpatient settings who are a tremendous support for the complex patient. Pharmacists, as the medicine experts, play a key role within these teams to ensure the safe and effective use of medicines. In the ever-changing field of pain management, when in doubt, consult your pharmacist!

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IS IT NECESSARY?

Dr Mick McDonough MBBS, Dip Clin Tox, MAddSc, FAChAM,

Head of Unit, Addiction Medicine and Toxicology, Western Health

For Mrs D, the main decision to choosing the appropriate management plan can be boiled down to three broad principles that are outlined by the National Medicines Policy for the Quality Use of Medicines (QUM).

1. Is the drug necessary?

2. If the drug is deemed necessary, is the medication individualised to the needs and circumstances of the patient?

3. Is the prescriber committed to the monitoring of the efficacy and safety of the medication provided?

Firstly, in considering whether a drug is necessary, there are many instances where non-pharmacological treatment should be considered prior to initiating pharmacological therapy. For example, lifestyle modification in a patient who is overweight and developing hypertension rather than initiating therapy with an antihypertensive drug as the first option.

Any analgesic therapy should be considered only after a proper diagnosis is confirmed and in this case, it appeared that a source of pain was not clearly identified, only suspected. The therapeutics of pain management involve identifying the source, driver and type of pain i.e. nociceptive, neuropathic, inflammatory etc.

Secondly, should a medication be considered necessary, medication therapy should be targeted towards the patient's individualised needs and circumstances, i.e. which is the most appropriate drug for this particular individual in these particular circumstances?

In this case, high potency fentanyl delivered by transdermal formulation was not the best choice of drug therapy for this individual - an elderly patient with suspected early dementia and delirium.

Thirdly, once embarking on any form of pharmacotherapeutic intervention, the prescriber should maintain a commitment to monitoring both the efficacy and safety of the medication provided. In the case of Mrs D, the monitoring is poorly documented and 'the team' were focussed on treating agitation or more specifically the patient's behaviour rather than correctly identifying pain and the pain generator.

Monitoring of medication safety requires regular surveillance for side effects. In this case the presence of respiratory depression was not adequately recognised and responded to; although there was some recognition of the constipation effects associated with opioid treatment.

In the end, this case demonstrates how important it is to be mindful of, and adherent to the principles of QUM. This case also demonstrates the importance of keeping good clinical notes justifying and accounting for treatment decisions and identifying ongoing appraisal of therapeutics.

FURTHER READING

McDonough M. Safe prescribing of opioids for persistent non-cancer pain. Aust Prescr 2012; 35: 20-4.

COMMENTS FROM OUR PEERS

"This TED talk about a female physician-epidemiologist's work on the use of X-ray in pregnant women: "Margaret Heffernan: Dare to disagree" is well worth a look."

It is available at: https://www.ted.com/talks/margaret_heffernan_dare_to_disagree

It is important to develop the confidence to voice questions and dissent as the most junior member of the team.

Because we are constantly changing rotations we are able to appraise situations with a fresh pair of eyes and perhaps it is easier to think outside the box than our more senior staff who are used to doing this in a particular way.

The other benefit of rotations is that we bring experience from other medical specialties that more senior staff may not have been exposed to for many years.