THE SHIFT EXTENSION

Next Gen Paramedic
"What's on Lou's Mind

Drug Directory
- Ondansetron

Snake Bite Management

PARAMEDIC PUBLISHING
ISSN 2653-3901

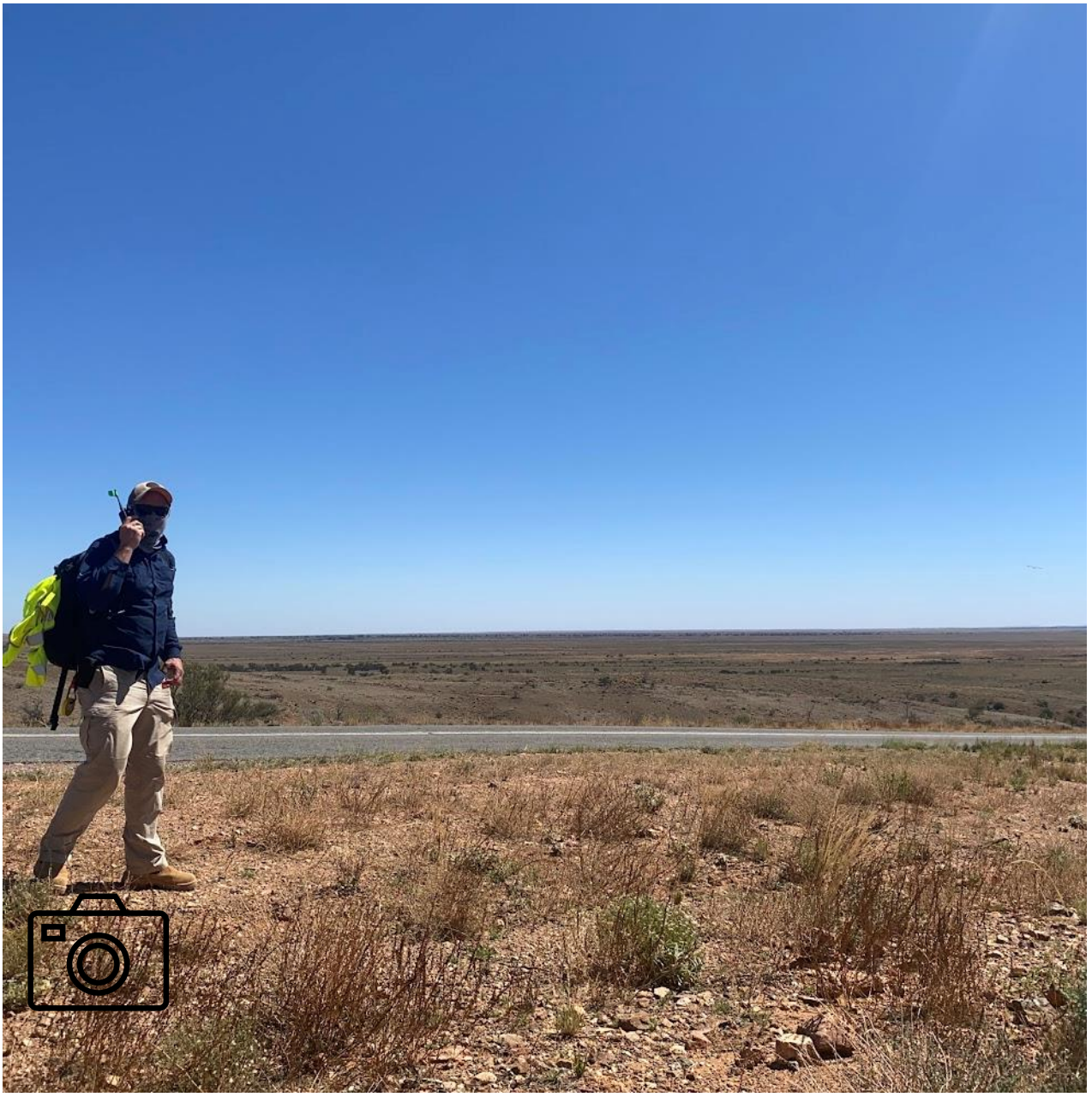
Volume 11 Summer 2025

PARAMEDICINE in FOCUS
‘Next Gen’

Photo by: Sunny Whitfield

PARAMEDICINE in FOCUS
‘CPD Should Be FUN’

Photo by: Nick Abussi



PARAMEDICINE in FOCUS
‘Legends in the Field’

Photo by: Sunny Whitfield

PARAMEDICINE in FOCUS
‘Never Stop Training’

Photo by: Matt Jeffery

THE SHIFT
EXTENSION

Training Day

Environmental and Toxicology

Thursday 10th March
Brisbane

Hands on training for students and paramedics

THE SHIFT EXTENSION

Table of Contents

The Shift Extension is a free-to-access, open-source publication that is committed to providing industry-relevant literature and information to enhance the development of the paramedicine profession through the sharing of information.

Cover image courtesy of Emma Day

Explora Group is the official publisher of The Shift Extension - Paramedic Publishing

Features

Regulars

THE SHIFT
EXTENSION

Membership

Join our community

Benefits

- Early release podcasts
- Discounted and FREE events
- Group and individual mentoring
- Literature reviews
- Case studies
- and more

Editorial

Why do bad things happen to good people?

Life is full of complexities, and one of the more profound and difficult questions we grapple with as paramedics is why bad things happen to good people. It's a question that spans centuries and crosses cultures, challenging our understanding of fairness, fate, and justice.

At its core, this question highlights the gap between our sense of morality and the unpredictable nature of the world. Good people, often defined by their kindness, integrity, and generosity, may encounter hardships that seem disproportionate to their behaviour. Yet, these events often have little to do with an individual's moral character and more to do with the randomness of life itself.

Paramedics are faced with this dilemma more than most people, and from a philosophical standpoint, the idea that bad things happen to good people challenges the concept of a just world. Psychologically, we are wired to seek patterns and connections, and when life feels unfair, it creates cognitive dissonance. We want to believe that kindness will be rewarded, but the world does not always operate that way.

Another perspective to consider though is that suffering is simply an inherent part of being human (although some suffer more than others). The laws of nature, the randomness of life, and the choices of others all play a role in our experiences. While we can't always explain why bad things happen, we can control how we respond. Ultimately, it's our ability to persevere and serve in our role as paramedics with grace, compassion, and resilience that defines our character.

In this issue you will hear from paramedics working in some challenging fields of paramedicine where we often are faced with bad things happening to good people.

Although challenging, remember that every life we touch is a chance to make a difference, no matter how small the moment, we bring hope where there was none.

Take care out there on shift.

Sunny

Editor-in-Chief

THE SHIFT
EXTENSION

Ride the Lightning

Clinical Symposium

Thursday 20th March
Brisbane

CPD done differently.

Ask a Paramedic with CCP Nick

Got a clinical question?
Questions can be sent to Nick at hello@theshiftextension.org

I recently saw an 8-year-old patient with severe croup. The patient had a history of similar, which was normally controlled with oral Prednisolone. I have been taught to treat croup with nebulised adrenaline but in this case my colleague opted for an intramuscular dose which was given in the deltoid.
I'm curious… So my question is why intramuscular instead of nebulised adrenaline?

Sounds like an interesting case. My first thoughts on this are that an 8-year-old is a bit old for croup and it's unusual to treat croup with IM adrenaline over nebulised. So that begs the question, did your mentor think that this wasn't croup and possibly a first presentation of anaphylaxis to an unknown pathogen? You don't always need to have two body systems, and if this was the case, I think it would be reasonable to give the child some intramuscular adrenaline. They can handle it; kids live on adrenaline. Would I do it? Probably not. I would start with nebulised and see how they trend, but if that was their line of thinking then their actions are very reasonable.

A nebuliser can be distressing for kids. The distress itself can make the croup worse. Don't underestimate the power of "Bluey" on an Ipad, a hug from mum or convincing them they look like a fighter pilot to limit that distress.

Ask a Paramedic with CCP Nick

Following on from this, my next question is, why did we use the deltoid instead of the thigh?

Why do we give intramuscular injections in the deltoid? To be honest, it's a cultural thing. Almost all paramedics use the deltoid. It's easier to access and doesn't require you to remove clothing (if they say have jeans on). It's just a habit. The vastus lateralis might be better in theory, but the general practice is different. Ahh the theory practice gap

My last question is if this was to occur again would an EpiPen be useful and would this be as effective?

Croup presentations are generally mild and do not require adrenaline. Some stridor's at rest will go away with steroids alone and some patients don't even need to go to hospital. Of the few that get adrenaline, even fewer need it quickly. Kids are incredibly resilient creatures. It is incredibly unlikely a EpiPen would be of value. I've only heard of one kid in my career arresting from suspected croup.

The other challenge you have is croup is not an approved condition for an EpiPen. Every drug manufacturer approves a list of conditions that their drug can be used to treat. We can use a drug for a condition that isn't on the list, but we would need to be able to justify it. For an EpiPen, a self -administering device containing adrenaline, the only thing on the list is anaphylaxis.

In this case, if the child had recurrent angioedema of an unknown cause that was not croup, a specialist might prescribe one. Patients do strange things and have presentations we haven't even heard of. So, it's certainly not outside the realm of possibility.

If you have an interesting case that you're curious about, write to us at hello@theshiftextension.org

THE SHIFT EXTENSION

THE SHIFT
EXTENSION

Membership

Join our community

Benefits

- Early release podcasts
- Discounted and FREE events
- Group and individual mentoring
- Literature reviews
- Case studies
- and more

THE SHIFT
EXTENSION

Training Day

Environmental and Toxicology

Thursday 10th March
Brisbane

Hands on training for students and paramedics

What's on Lou's Mind?

Thoughts from a Next-Gen Paramedic.
Suggestions can be sent to Lou at hello@theshiftextension.org

"I feel a bit sick…"

I'm yet to meet anyone who actually likes cleaning up vomit, or at least will openly admit they do. Regardless of where you work, the words; "I feel a bit sick", coming from a patient usually results in most paramedics quickly reaching for a vomit bag, and asking "do you know if you've had something called ondansetron before?".

As someone who still struggles not to start gagging and joining in involuntarily when someone else throws up around me, I am certainly all for preventing the patient experiencing the uncomfortable process of potentially avoidable emesis. And so, as I hear my patient utter those words, I pass over the vomit bag without delay, and begin to mentally run through each contraindication and precaution for ondansetron.

But have you ever wondered why cardiac dysrhythmias is a precaution listed for ondansetron? Well, I did, and went searching for the answer and was surprised at what I found. Numerous case studies have been published discussing patients experiencing cardiac dysrhythmias following the administration of ondansetron.1-6 Unfortunately, literature also describes cases whereby fatal cardiac arrests have occurred following the administration of ondansetron, both orally and intravenously.

In one case report, ondansetron was administered to a pregnant patient, who soon became bradycardic at 40 beats per minute.1 The patient recovered without intervention, but then shortly after required an additional dose of ondansetron and went into asystole, requiring advanced cardiac life support measures before the return of spontaneous circulation (ROSC).1 Additionally,

What's on Lou's Mind?
(continued)

other case reports have documented patients experiencing fatal outcomes following the administration of ondansetron.2,3 These cases included patients presenting with cardiac dysthymias, such as sinus bradycardia and ventricular tachycardia, soon after administration. Surprisingly though, these case studies indicated that these patients had no history of any notable cardiac dysthymias.

Ondansetron is a selective 5-hydroxytryptamine type 3 (5-HT3) serotonin receptor antagonist, which is primarily used for its antiemetic effects.4 It works by blocking these receptors on central and peripheral sites.4 The theory behind its potential cardiac effects is due to its cardiac sodium and potassium channel-blocking potency, which accounts for the prolonged cardiac repolarisation.7 The 5-HT3 receptors also mediate the Bezold-Jarisch reflex, and therefore, suppression or blocking of this reflex can cause tachyarrhythmias.8

Now, if you think after finding these case reports that I decided to never use ondansetron again… well, not quite. I will certainly be using ondansetron in the right setting, as it has its place and importance for patients, but I guess now I know a little bit more about ondansetron-induced cardiac dysthymias and feel more cognitively prepared if I was to ever have a patient react to ondansetron or at least consider ondansetron as the potential culprit.

1. Rapp JH, Yuen M, Abraham T. Bradycardia after intravenous ondansetron with asystole rechallenge: a case report. Hospital Pharmacy,2015;50(10):918-921. doi: 10.1310/hpj5010-918
2. Brenner SM, Boucher J. Fatal cardiac arrest in 2 children possible role of ondansetron. Paediatric Emergency Care, 2016;32(11):779-784. doi: 10.1097/PEC.0000000000000317
3. Chandrakala R, Vijayashankara CN, Kumar KK, Sarala N. Ondansetron induced fatal ventricular tachycardia. Indian Journal of Pharmacology, 2008;40(4):186-187. doi: 10.4103/0253-7613.43168
4. Firew E, Huang H, Anand A, Asfew YA, Parikh c, Khan HR. Ondansetron-induced pseudoallergy with non-ischemic myocardial injury: a rare case report of Kounis syndrome. Clinical Case Reports, 2022;10:1-6. doi: 10.1002/ccr3.6781
5. Moazzam S, Nasreen F, Bano S, Amir SH. Symptomatic sinus bradycardia: a rare adverse effect of intravenous ondansetron. Saudi Journal of Anaesthesia, 2011;5(1):96-97. doi: 10.4103/1658-354X.76492
6. Sapkota K, Bhagat R. Fatal anaphylaxis to intravenous ondansetron: a case report. Clinical Case Reports, 2021;9(e04110):1-3. doi: 10.1002/ccr3.4110
7. Kuryshev YA, Brown AM, Wang L, Benedict CR, Rampe D. Interactions of the 5-hydroxytryptamine 3 antagonist class of antiemetic drugs with human cardiac ion channels. Journal of Pharamcology and Experimental Therapeutics, 2000;295(2):614-620. doi: 10.1016/S0022-3565(24)38946-3
8. Hou X-M, Chen Y-H, Lai L, Liu K, Shen Q-H. Ondansetron reduces the incidence of hypotension after spinal anaesthesia: a systematic review and meta-analysis. Pharmaceuticals, 2022;15,1-6. doi: 10.3390/ph15121588

Rad Research with Paramedic Matt

Got a question about paramedicine research?
Questions can be sent to Matt at hello@theshiftextension.org

Hey folks,
Research doesn't have to be dull! Here's a short little blurb where we share a random selection of fun, quirky research articles we've stumbled across.

This 2020 study did a meta-analysis (which just means using statistics to pool the results of lots of smaller studies, hopefully getting an overall answer that's more reliable) of the accuracy of lung auscultation.
They pooled 34 studies (for reference, that's a lot) and found that, for all acute lung diseases overall, we have a sensitivity of 37% and specificity of 89% when having a listen.
What does that mean?
Sensitivity is how well you pick something up - so only 37% of patients with a lung disease were identified on auscultation. This means if you don't hear anything, you can't say the patient doesn't have a disease; you will miss 63% of unwell patients!
Specificity is how accurate the sound is for a condition - unsurprisingly, this is higher at 89%, meaning if you hear something on auscultation, most of the time there is a problem in the lungs.

But, again, for 11% of patients, there won't be a lung pathology at all, and the abnormal sounds are normal for them.
For the COPD/Asthma combo, the sensitivity of wheezes was 26%; three quarters of patients ultimately diagnosed with the conditions won't wheeze.
The good news is everyone is OK at auscultating haemos/pneumos, with a sensitivity of 70% and a specificity of 99%.
How should you use this study? It's a great reminder not to rely on any one tool for diagnosis and treatment decisions.

This probably also means that more accurate tools like ultrasound (which, for example, has 100% sensitivity and 90-something% specificity for pneumonia) is the way of the future for all of us.

1. Arts, L., Lim, E.H.T., van de Ven, P.M. et al. The diagnostic accuracy of lung auscultation in adult patients with acute pulmonary pathologies: a meta-analysis. Sci Rep 10, 7347 (2020).

Paramedic Spotlight

This issue we are spotlighting Rescue Paramedic Chene Clydesdale. A paramedic who has worked across the full spectrum of professional paramedicine including rescue paramedic, ambulance paramedic and expeditionary paramedic.

I've never really considered myself much of a writer, but as I sit here preparing for another day of work and attempt to put this article together, I find myself reflecting on my career, the experiences I've had, the direction it's heading, and the incredible people I've met along the way. And I can't help but feel excited to share it all with you. To be honest, when I was asked to write an article for this issue, I was, and still am, nervous. I had no idea what to write about—until the question popped into my head: What made you want to become a paramedic? It's one of the most common questions we all get asked, whether it's from a new work partner, a colleague, a patient, or even in casual social settings. It's an easy topic for small talk, right? So, here's my story.

I finished school in 2013 with average marks and absolutely no idea what I wanted to do with my life—other than crave adventure. I wanted to leave my small town behind and pursue a career where every day was different. I joined the defense force, thinking it would be the right fit, but quickly realized it wasn't. The role I was in didn't provide the variety I craved. After almost three years, I submitted my discharge notice, still unsure of my next steps. At the time, my Commanding Officer refused to approve my discharge unless I was enrolled in university or had a full-time job lined up. I'll admit, I was furious. It seemed like an unfair stipulation—especially when others weren't held to the same standard. But in hindsight, I'm truly grateful for it, as I can't imagine where I'd be today if it hadn't been enforced. Long story short, I enrolled in university, had my discharge approved, and chose a Bachelor's in Physiotherapy. But I soon realized I wasn't passionate about it, so I shifted my focus. I looked at the degrees this course fed into and decided to pursue Paramedicine. That was nearly eight years ago, and I haven't looked back since.

Graduating in July 2020 in the midst of a pandemic was far from ideal. COVID had the world in a grip—hospital visits were down, there were hiring freezes, state border controls, lockdowns, and more. Securing a job was tough. Some of my fellow graduates found work with state services, others went to the UK, and I began working in the private sector. My first role was as an ambulance attendant in Victoria,

Paramedic Spotlight

during the height of the COVID pandemic. It was a learning curve! The job gave me the chance to build my on-road experience, gain clinical exposure, and boost my confidence as we responded to everything from patient transport jobs to lower acuity calls. Since we didn't complete our final placements due to COVID, this job served as a good substitute and eased me into my future career. My colleagues were mainly other graduates, also waiting for state service roles, or third-year students preparing to graduate. We also mentored first-year students on their initial placements. The work was a mix of patient transport jobs and lower acuity calls, like lift assists, falls, general illness, and broken bones. This role was not only a valuable clinical opportunity, but it also helped me keep my sanity during the lockdowns in Victoria. I eventually decided to move on, partly due to the atmosphere at the time, and began working toward a career in mining. I earned qualifications in mines rescue, drug and alcohol testing, and the necessary certifications to apply for jobs in that field. After many rejections, I finally secured a position as a rescue paramedic on a coal mine, and began contracting as a standby rescue paramedic for a specialist rescue company. My contract work ranged from providing medical support during maintenance shutdowns at large power stations to ensuring safe entry and exit from stormwater drains, ready to respond to emergencies. The work involved risks such as confined spaces, volatile gases, heights, large machinery, and human error. Thankfully, I've avoided serious incidents in these challenging environments. Currently, I work full-time as a state service paramedic on the road. I still take on contract work because I enjoy the variety and the challenges of working in austere environments. I've recently ventured into expedition medical response, where I had the unique opportunity to support contestants on a reality TV show in the Australian wilderness. It's a job full of unique experiences, and I never could have imagined how far my career would take me when I first enrolled in university all those years ago. In a nutshell, that's my story so far, and I'm excited to see where the future leads.

Reflections of an ESO

Got a question about the private sector?
Questions can be sent to Nathan at hello@theshiftextension.org

The Proactive Emergency Services Officer: Breaking the Stereotype

Emergency Service Officers (ESOs) in the resources sector often battle a stigma—seen as idle until an incident occurs. Yet, the reality is that proactive ESOs are the backbone of site safety, risk mitigation, and emergency preparedness. The difference between an ESO perceived as “lazy” and one recognized as invaluable often comes from mindset, continuous education, and operational engagement. Seasoned ESOs don't just react; they plan, anticipate and intervene early.

Risk Mitigation

Conducting hazard assessments, equipment inspections, and fire safety audits reduces the likelihood of major incidents. Actively engage with your site and its area owners. Hit the gym a few times a week, it encourages your ERT and prepares you both physically and mentally.

Sharpen Your Skills

I once had an ESO ask me, "I've already got the Cert 4 in Health Care, should I just disregard the Diploma and do ALS1?". The short answer is no. You are in a remote environment; if anything, I'd strongly suggest a Bachelor of Nursing or Paramedicine for higher-level mentoring. If anything, the Diploma of Emergency Healthcare. You need to be ahead of the game, you certainly don't have backup 5 minutes out. Our winged angels at the RFDS even take hours to get to us sometimes, in the most trying of times, and that's when they're rushing. So yes, that next qualification is essential. If you've never heard the words "Authority to act outside of scope" from your medical director, trust me—nothing spikes the adrenaline faster than that moment. What controls that moment? You take a breath and think, 'Thank god I did that course and received mentoring, I've got this".

Below is a list of courses an ESO should strongly consider, early in their career:

- **MIMMS (Major Incident Medical Management and Support) –** Course for handling large-scale incidents efficiently.
- **PHTLS (Prehospital Trauma Life Support) –** Enhances trauma management skills in high-risk industries.
- **ALS 1 (Advanced Life Support Level 1) –** Provides advanced resuscitation techniques and airway management skills.
- **Fire Team Leader & Emergency Response Team Training –** Strengthens fire suppression and rescue operations leadership.
- **First Aid & Mental Health First Aid –** Covers physical and psychological first-response care for site welfare.

Reflections of an ESO (cont)

- **PALS (Paediatric Advanced Life Support)** - Advanced life support for our little one.

Own Your Role

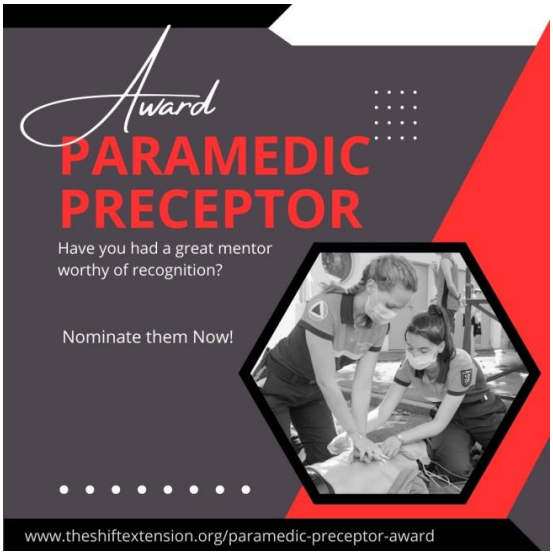
Be seen, interact with others, do your checks, know your equipment, and be the best version you can be for yourself and others. Tuck your shirt in, roll your sleeves down and be pleasant. You are the one standing between a minor incident and a catastrophic event. Remember, when it's hitting the fan, they call you.

Be ready. Be trained. Be the reason someone makes it home.

Stay safe,

Nathan

Disclaimer: *The views and opinions expressed in this article are my own and do not reflect those of my employer or any affiliated organization.*



An Interview with

Chief Paramedic Shell Piercy

Following the recent announcement from the Northern Territory (NT) Department of Health that Paramedic Shell Piercy had been appointed the Chief Paramedic Officer, we asked for a moment of her time to unpack who she is, and where we are going!

Sunny: Can you share a bit about your personal journey into paramed and what inspired you to pursue a career as a paramedic?

Shell: I started my career as a medic on a private yacht in the port of Antibes in the South of France in 1999 - 2000. The training was provided by a British Company in delivering first aid aboard a ship. I was inspired to put my hand up for this as I had an interest in how things worked, especially humans. Learning more about medicine and empathy was the draw card.

Sunny: What were some of the key experiences or moments in your career that prepared you for the role of paramedic chief?

Shell: It's the tapestry of experiences that shape us and prepare us for the roles we take. I think my military career prepared me well for this role, however conversely, I spent many years as a business leader outside of health care which has provided a large number of sales and marketing qualities that can be used to promote paramedicine. But I wouldn't be who I am and as adaptive if I hadn't been a wilderness paramedic or a remote area nurse.

Sunny: Wait, you were a soldier?

Shell: Yep, just over 6 year as a nursing officer.

Sunny: Yikes, okay. I'll be more careful in my questioning…What personal qualities or values do you believe have been essential to your success in this career of yours?

Shell: Determination and resilience are vital to success! We choose who we show up as each day! I choose to show up every day with a growth mindset, loaded with empathy and resilience.

Sunny: As someone who's also worked on the frontlines of army and paramed, how has your perspective on paramedicine evolved over the years?

Shell: I love being clinical, I am lucky in that this role I can maintain my clinical practices. My perspective that changed the most was that I could only help one or two people at a time, or coach or mentor one student or junior at a time, and when I could see glaring issues in the system and solutions no one listened. So if I stepped back and applied myself at leadership and consultant roles I could help more patients, support more students and juniors and actually support change and development in the healthcare systems.

Sunny: Sounds like you are a change-maker…possibly a solutions-based constructive-disrupter.

Shell: Careful Sunny.

An Interview with Chief Paramedic Shell Piercy (continued)

Sunny: Let's delve into you then. What was the most challenging moment of your career so far, and how did it shape your approach to leadership?

Shell: The 17th of December 2024 a 7.3 magnitude earthquake struck Vanuatu's capital Port Vila; I was part way through a handover to the incoming CEO who was off duty that day. Being the exiting CEO and Duty Manager and Critical Care Paramedic that day the decisions in the chaos were mine and the team looked to me to make them.

Sunny: That sounds epic, but it might also be a bit raw to quiz you on so soon after so ill keep that for another chat. Instead tell me how you balance your professional responsibilities and personal life, given the demanding nature of your work?

Shell: Health and wellbeing, adventure. I'm a huge fan of good food, exercise, meditation, yoga, adventures (surf, snow, mountains, etc) and good friends. I stay away from Alcohol and I'm lucky enough my now grown-up kids fly all over to visit me wherever I'm working.

Sunny: Ive also seen you reading Ikigai – guess that's all your reason for being. Okay move on, who or what has been the biggest influence in your career, and how have they shaped your leadership style?

Shell: Leadership for me was shaped as much by the terrible versions of leadership I saw as the most incredible leaders I have worked with or been influenced by. Being a female leader, I decided early on in my career I wanted to be kind and empathetic in my leadership and I see this as a superpower not a weakness. I strive everyday to be the leader I needed throughout my career. My role models and influences are many and I am surrounded by a wonderful group of inspirational people at all levels of leadership and across wide variety of work contexts and countries though I'm sure they wouldn't want to be named. They are all incredibly humble people.

Sunny: What's been the most fulfilling part of your career as a paramedic, and how do you stay motivated after so many years in the field?

Shell: The most fulfilling part of my career, now that's tricky, there are so many. Inspiring paramedics to love their careers again is pretty fulfilling! I stay motivated and loving my career by working in diverse and challenging contexts where I am challenged to continue to grow and develop, getting 1% better every day! I love the lifelong learning and remain curious.

Sunny: Looking back, what advice would you give to someone just starting out in the paramed field?

Shell: Your career is going to be what you make it, don't be influenced by other people's expectations for you, follow your passion. Your passions will lead you to incredible places and experiences. Being a paramedic is far more then ambulance services.

Sunny: If you could have dinner with anyone, who would it be? Name up to 3 if you want.

Shell: Sunny Whitfield, Sandy Macquarie and Nick Abusi - legends...There are a few more names I'd add, I'd make it a whole dinner party! Glen Beasley, Andy Bell, Mel Alexander, Ange Martin, Alecka Miles, and Julie Johnson.

Sunny: Boring… I wanted to hear something like Ghengi Khan or Joan of Arc. Okay, Last question. As a paramedic chief, what personal goals do you have for yourself, both professionally and personally, in the next few years?

Shell: Professionally I will continue to practice and grow and develop into the roles the suit the diverse and remote communities across the NT. I would love to see an expert generalist paramedic role in NT, similar to an Advanced Practitioner. The roles are diverse and require a broad understanding and experience across both critical care and community care in remote locations. I'll focus my ongoing professional development in these areas, it pays to be able to walk the walk not just talk the talk.

Sunny: Thanks for your time Chief.

Shell: Dont call me that.

THE SHIFT EXTENSION

Chloe ★★★★★
Paramedic

The latest publication of The Shift Extension is 10000000/10 !!!!

Izzy ★★★★★
Paramedicine Student

This is the most supportive group of paramedic who actually want to mentor students and help us grow.

Kahid ★★★★★
Ambulance Paramedic

Was so awesome to see the latest issue of TSE come out again - thank you for what you do.

Amy ★★★★★
Student

The podcast is by far the best thing for me. As a student I find them funny, enjoyable and very educational.

josh ★★★★★
Paramedicine Student

I just attended the CPD symposium Bites Bombs and Beers and all I can say is thankyou! The event was such a highlight to my ongoing studies.

www.theshiftextension.org

THE SHIFT
EXTENSION

Ride the Lightning

Clinical Symposium

Thursday 20th March
Brisbane

CPD done differently.

Critical Care Case Study from the UK

Words by Emma Gahan
University of East Anglia

This case study reflects on a patient encounter, outlining my decision-making rationale and evaluating my actions through an evidence-based lens. The patient, a 19-year-old male, was encountered at his residence after police intervention due to threats involving a knife.

Upon arrival, we were greeted by the patient's mother. Entering the home, I conducted a quick environmental assessment to identify potential risks and understand the situation better. The house was neat, with no visible drug paraphernalia or medication packets, but the patient was handcuffed by the police, exhibiting erratic and agitated behavior. Despite the cold weather, he was only wearing shorts and appeared disoriented, with no eye contact or acknowledgment of our arrival. Additionally, he was bleeding from one hand. Although the injury was not life-threatening, it required immediate attention, though the patient resisted any attempts to assess it.

Obtaining a detailed history from the patient was challenging due to his altered state. He claimed that his family was plotting to kill him. His mother indicated that this level of mental distress was unusual for him, but she mentioned that he had consumed cocaine that morning. This prompted me to consider potential neurological causes for his behavior.

To assess the patient, I followed the primary survey using the ABCDE approach (JRCALC, 2022). Typically, this should take 60–90 seconds, but due to his inability to follow commands and remain still, the assessment took longer. There were no signs of c-spine injury as he moved his neck freely, and his airway was patent as he was shouting obscenities. His chest showed no signs of trauma, swelling, or abnormal markings. He was tachypneic, with a respiratory rate of 36 breaths per minute, but chest expansion was equal and bilateral. However, due to his movement and shouting, percussion and auscultation were not possible. His oxygen saturation was 93%, and he appeared clammy and flushed. Although he did not complain of chest pain, his elevated pulse

rate of 129 beats per minute suggested the need for further investigation, such as an electrocardiogram (ECG) and blood pressure (BP) measurement, which were impractical in this situation. His peripheral capillary refill time was 2 seconds, and his blood glucose level was 6.4 mmol/L.

On the AVPU scale (Resuscitation Council UK, 2024), the patient was alert but confused, moving all four limbs violently, and fully mobile. He was also hyperthermic, with a temperature of 39.6°C, resulting in a NEWS2 score of at least 9.

I suspected that the patient was experiencing cocaine-induced acute behavioral disturbance (ABD), which is time-critical due to the potential for circulatory collapse. ABD is a clinical syndrome (Humphries et al., 2023), rather than a stand-alone condition, and can only be diagnosed after ruling out other medical causes. It is characterized by delirium, dysregulated physiological responses, and aggressive behavior, often triggered by illicit drugs like cocaine (Stevenson & Tracy, 2020).

Cocaine, a sympathomimetic drug (Lange & Hillis, 2001), stimulates both alpha- and beta-adrenergic receptors, inducing a 'fight-or-flight' response. This causes peripheral vasoconstriction, raising systemic vascular resistance and BP (McCorry, 2007). Although BP was unobtainable, the patient's strong radial pulses indicated he was not hypotensive. Cocaine also increases heart rate (tachycardia), which is a compensatory response to the increased cardiac workload and myocardial oxygen demand (Lange & Hillis, 2001). In combination with bronchodilation due to SNS activation (Plush et al., 2013), the patient's tachypnoea could be explained as an attempt to enhance oxygen intake. However, rapid, shallow breathing could lead to inefficient pulmonary ventilation, increased carbon dioxide retention, and metabolic acidosis (Geers & Gros, 2000). Given the patient's state, I anticipated that his tachycardia might not be sustainable, increasing the risk of arrhythmias or cardiac arrest (Plush et al., 2013).

Cocaine also interferes with the mesolimbic pathway in the brain, which is responsible for the perception of pleasure. By inhibiting dopamine reuptake (Lange & Hillis, 2001), cocaine increases dopamine activity, leading to euphoria and, in large doses, psychosis and severe agitation, which were apparent in this patient. His delusions of being killed led to fear-driven movement and overheating (Henry, 2000). Additionally, his hyperthermia was likely exacerbated by muscle exertion (Damatto et al., 2019) and may have contributed to further delirium.

Cocaine can also impair heat dissipation by raising the threshold for sweating, further complicating hyperthermia (Crandall et al., 2002). At our arrival, the patient was in significant diaphoresis, but as the condition progressed, this could have worsened.

The patient displayed several key signs of ABD: he was non-responsive to our presence, indicating potential neurological impact (Cowling et al., 2007), unaware of his injury, and exhibited superhuman strength, which is consistent with ABD. His hand injury, caused by glass, also pointed toward ABD, as individuals experiencing this syndrome may be attracted to sharp objects and may not feel pain (Faculty of Forensic and Legal Medicine, 2022).

Given the incomplete history, ruling out other medical causes was essential. Hypoglycemia, for example, can mimic psychosis and neurological deficits (Klemen et al., 2000), so a blood glucose test was vital. His blood glucose level was within normal limits, ruling out hypoglycemia. His mydriatic pupils and bloodshot eyes further suggested cocaine use (McCorry, 2007), while the lack of trauma ruled out head injury. Although cerebrovascular accidents (CVAs) are sometimes linked to cocaine use (Treadwell & Robinson, 2007), the patient's age made this less likely. Alcohol intoxication, which can cause aggression,

was also ruled out due to the absence of alcohol odor or evidence at the scene.

In the face of these differential diagnoses, I maintained my belief that the patient's presentation was due to ABD and treated him accordingly.

Management Approach:

In managing this patient, I adhered to the ABCDE approach while prioritizing safety through dynamic risk assessment. Verbal de-escalation was attempted, in line with National Institute for Health and Care Excellence (NICE) guidelines, which suggest trying non-restrictive methods before resorting to physical restraint (NICE, 2015). However, the patient remained uncooperative despite attempts from both myself and his mother.

His airway was intact, but supplemental oxygen was required to address his low oxygen saturation levels. Oxygen therapy is crucial in preventing anaerobic respiration and alleviating metabolic acidosis. Due to the patient's agitation, a nasal cannula would not have been tolerated.

Immediate temperature reduction was necessary to prevent multi-organ failure (Stevenson & Tracy, 2020). We moved the patient outside, where cooler temperatures could aid in heat dissipation. Although intravenous (IV) fluids are an effective cooling strategy when temperatures exceed 39°C (Peel, 2022), we opted against IV access to avoid further strain on the patient's heart and to mitigate the risk of needle-stick injury.

Hospital Transport and Restraint:

The patient required hospitalization for both his altered mental state and the management of his hand injury. Given his inability to understand, retain, or communicate information, a capacity assessment was needed, and transport to the hospital was arranged under the Mental Capacity Act (gov.uk, 2005). Restraint was necessary to ensure safe extrication, but further restraint increased the patient's agitation, worsening his acidosis and respiratory distress. Research suggests that restraint positions can affect respiratory function (Barnett et al., 2012), and the prone position could have further compromised his breathing, leading to potential asphyxia.

Reflection:

Evaluating my actions, I reflected on the decision not to sedate the patient. Given that we were close to the hospital, we felt it was more time-efficient to transport the patient ourselves. However, for patients further from the hospital, sedation would have been considered. In this case, I also realized that sedation, using medications like ketamine or midazolam, could have been beneficial. Ketamine, for example, can provide sedation and control agitation, reducing the risk of injury to both the patient and the healthcare team (Rosenbaum, 2024).

Additionally, I was unaware of the potential use of diazepam for cocaine toxicity (JRCALC, 2022). Diazepam could have been used to calm the patient's CNS and prevent cardiovascular collapse. Following this case, I have made it a priority to familiarize myself with the medications available in the ambulance setting to improve my confidence in future patient care.

This case underscored the importance of effective communication, understanding time-sensitive symptoms, and recognizing the risks associated with restraint. I now have a greater awareness of restraint safety and have engaged in discussions with law enforcement to improve coordination in providing optimal care.

Reference

Barnett, R. et al. (2012) 'The physiological impact of upper limb position in prone restraint', Medicine, Science and the Law, 53(3), pp 161-165. Available at: https://doi.org/10.1258/msl.2012.012044

Beer, M.D. et al. (2001) Psychiatric Intensive Care. London: Greenwich Medical Media, pp 21.

Chang, S. et al. (2022) 'An increase in peripheral temperature following cocaine administration is mediated through activation of dopamine D2 receptor in rats', Life, 12(2), p. 143. doi:10.3390/life12020143.

Cole, J. et al. (2018) 'A prospective study of ketamine as primary therapy for prehospital profound agitation', The American Journal of Emergency Medicine, 36(5), pp 789-796. Available at: https://doi.org/10.1016/j.ajem.2017.10.022

Cowling, S.A., McKeon, M.A. and Weiland, T.J. (2007) 'Managing acute behavioural disturbance in an emergency department using a behavioural assessment room', Australian Health Review, 31(2), p. 296. doi:10.1071/ah070296.

Crandall, C.G., Vongpatanasin, W. and Victor, R.G. (2002) 'Mechanism of cocaine-induced hyperthermia in humans', Annals of Internal Medicine, 136(11), p. 785. doi:10.7326/0003-4819-136-11-200206040-00006.

Damatto, R.L., Cezar, M.D. and Santos, P.P. (2019) 'Control of body temperature during physical exercise', Arquivos Brasileiros de Cardiologia. doi:10.5935/abc.20190081.

Drugbank (2024) Ketamine, Uses, Interactions, Mechanism of Action | DrugBank Online. Available at: https://go.drugbank.com/drugs/DB01221 (Last Accessed: 26 March 2024).

Faculty of Forensic and Legal Medicine (2022) Acute behavioural disturbance (ABD): guidelines on management in police custody. Available at: https://fflm.ac.uk/resources/publications/acute-behavioural-disturbance-abdguidelines-on-management-in-police-custody/ (Last accessed: 28 March 2024).

Fraser, L.K. et al. (2024) Acute Behavioural Disturbance. Available at: https://www.rcemlearning.co.uk/reference/acute-behavioural-disturbance/#1639499537391-49ed17b0-f68e (Last Accessed: 18 March 2024).

Geers, C. and Gros, G. (2000) 'Carbon dioxide transport and carbonic anhydrase in blood and muscle', Physiological Reviews, 80(2), pp. 681–715. doi:10.1152/physrev.2000.80.2.681.

Henry, J.A. (2000) 'Metabolic consequences of Drug Misuse', British Journal of Anaesthesia, 85(1), pp. 136–142. doi:10.1093/bja/85.1.136.

Humphries, C. et al. (2023) 'Consensus on acute behavioural disturbance in the UK: A multidisciplinary modified Delphi Study to determine what it is and how it should be managed', Emergency Medicine Journal, 41(1), pp. 4–12. doi:10.1136/emermed-2023-213335.

Joint Royal Colleges Ambulance Liaison Committee, 2022. UK Ambulance Services Clinical Practice Guidelines. Bridgwater: Class Publishing

Klemen, P., Grmec and Cander, D. (2000) 'Hypoglycemia masquerading as acute psychosis in young age', Critical Care, 4(Suppl 1). doi:10.1186/cc892.

Lange, R.A. and Hillis, L.D. (2001) 'Cardiovascular complications of cocaine use', New England Journal of Medicine, 345(5), pp. 351–358. doi:10.1056/nejm200108023450507.

Marieb, E., Keller, S. (2022) Essentials of Human Anatomy & Physiology. 13th edn. Harlow: Pearson Education.

McCorry, L.K. (2007) 'Physiology of the autonomic nervous system', American Journal of Pharmaceutical Education, 71(4), pp. 78. doi:10.5688/aj710478.

Mental Capacity Act 2005, c.9. (2005) Legislation.gov.uk. Available at: https://www.legislation.gov.uk/ukpga/2005/9/section/3 (Last Accessed: 24 March 2024).

National Institute for Health and Care Excellence (2016) Major trauma: service delivery. Available at: https://www.nice.org.uk/guidance/ng40/chapter/Recommendations#prealert-procedures (Last Accessed: 28 March 2024).

National Institute for Health and Care Excellence (2015) Violence and aggression: short-term management in mental health, health and community settings. Available at: https://www.nice.org.uk/guidance/ng10/resources/violence-and-aggression-shortterm-management-in-mental-health-health-and-community-settings-1837264712389#page9 (Last Accessed: 26 March 2024).

Peel, M. (2022) 'Acute behavioural disturbance: Recognition, assessment and Management', Emergency Nurse, 30(5), pp. 33–40. doi:10.7748/en.2022.e2126.

Plush, T. et al. (2013) 'Cocaine-induced agitated delirium', Journal of Intensive Care Medicine, 30(1), pp. 49–57. doi:10.1177/0885066613507420.

Resuscitation Council UK (2024) The ABCDE Approach. Available at: https://www.resus.org.uk/library/abcde-approach (Last Accessed: 27 March 2024).

Rosenbaum, S.B. (2024) Ketamine, StatPearls [Internet]. Available at: https://www.ncbi.nlm.nih.gov/books/NBK470357/ (Last Accessed: 23 March 2024)

Slattery, D.E. and Silver, A. (2009) 'The hazards of providing care in emergency vehicles: An opportunity for reform', Prehospital Emergency Care, 13(3), pp. 388–397. doi:10.1080/10903120802706104.

Stevenson, R. and Tracy, D.K. (2020) 'Acute behavioural disturbance: A physical emergency psychiatrists need to understand', BJPsych Advances, 27(5), pp. 333–342. doi:10.1192/bja.2020.67.

Treadwell, S.D. and Robinson, T.G. (2007) 'Cocaine use and stroke', Postgraduate Medical Journal, 83(980), pp. 389–394. doi:10.1136/pgmj.2006.055970.

THE SHIFT
EXTENSION

Training Day

Environmental and Toxicology

Thursday 10th March
Brisbane

Hands on training for students and paramedics

Snake Bite Management

Words by Jossie Stadent

Snake bites are a medical emergency, and in Australia, where many venomous snake species are found, prompt recognition and intervention is critical to minimise the effects of envenomation and increase the chances of survival. Among the various techniques, the Pressure Immobilisation Bandage (PIB) method is considered the most effective for managing the majority of venomous snake bites in Australia. This technique helps slow the spread of venom through the lymphatic system and keeps the victim as stable as possible until professional medical help is available.

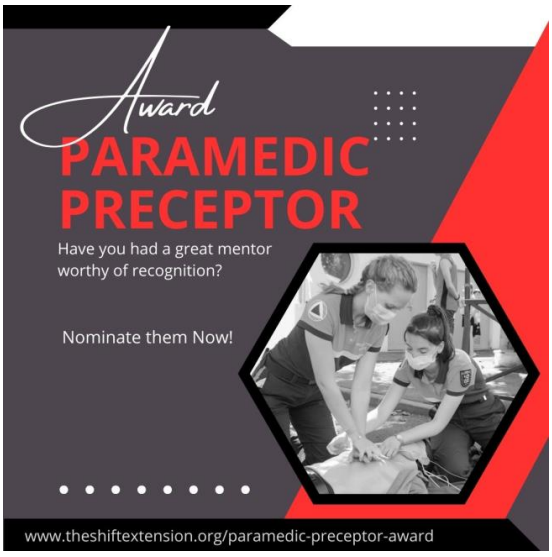
This report explains how to apply a pressure immobilisation bandage to a snake bite victim, with attention to specific techniques, recommendations, and the rationale behind each step.

Understanding the Snake Bite and Venom Spread

In Australia, there are several species of venomous snakes, including the taipan, brown snake, and tiger snake. When bitten by one of these snakes, venom is typically delivered through the fangs into the bloodstream or lymphatic system. When it enters through the lymphatic system, it is carried throughout the body, causing systemic symptoms.

The venom of many Australian snakes can lead to rapid and severe effects, such as paralysis, coagulopathy (bleeding disorder), and tissue damage. For this reason, the primary goal of first snake bite management is to delay the spread of venom while stabilising the victim until they can receive medical treatment, usually in the form of antivenom.

A Pressure Immobilisation Bandage (PIB) works by applying pressure to the wound and immobilising the affected limb, thus preventing the venom from being rapidly circulated through the victim's body.



Recognising the Symptoms of a Snake Bite

While applying the Pressure Immobilisation Bandage, it is essential to recognise the signs and symptoms of a snake bite. Early signs of envenomation can require a more rapid response to hospital. Common symptoms include:

- A puncture wound or two distinct fang marks at the site of the bite (sometimes even a scratch)

- Immediate pain and swelling around the bite area

- Bruising or discoloration at the bite site

- Nausea, vomiting, or dizziness

- Sweating, weakness, or fainting

- Difficulty breathing, blurred vision, or paralysis (depending on the severity of the envenomation)

If the victim is conscious, it's important to reassure them and minimise movement to help reduce the spread of venom, as it is carried by the lymphatic system (moves with muscle contractions).

Application of a Pressure Immobilisation Bandage

The Pressure Immobilisation Bandage is applied in a systematic way, ensuring the venom is contained and its spread is delayed. The key components of the technique are:

Step 1: Keep the Victim Calm and Immobilised

The first step in responding to a snake bite is to keep the victim as calm as possible. Panic can increase the victim's heart rate, which may cause the venom to spread more quickly. Instruct the victim to remain still and try to keep the affected limb immobilised and at or below the level of the heart. This position helps slow the flow of venom to the upper body and vital organs.

Step 2: Call for back Up

It is essential that if signs and symptoms are recognised, to call for back-up immediately. If possible, take note of the snake's colour, shape, and size as this information can help determine the most appropriate treatment, including the type of antivenom required.

Step 3: Apply the Pressure Bandage

After assessing the situation, if a bite is possible, even if there are no signs or symptoms present, it is time to apply the pressure bandage. This should be done as soon as possible after the bite and before symptoms worsen. The pressure bandage will help limit the spread of venom and prevent it from circulating through the bloodstream.

Use a broad, firm bandage or a crepe bandage that is 7–10 cm wide. This will allow for the necessary pressure without restricting circulation. You can also use a triangular bandage or a length of cloth in the absence of a proper bandage.

Apply the bandage directly over the bite site.

The bandage should be rolled or laid flat against the skin, and it should cover the entire limb from the bite site to the upper part of the limb (just above the elbow or knee). Make sure the bandage is applied tightly enough to create pressure, but not so tightly that it cuts off circulation. You should still be able to insert one finger under the bandage. The pressure should feel significant but should not be painful. The bandage should cover as much of the limb as possible, from the bite site down to the fingers or toes. The goal is to slow the venom's movement, not to stop blood flow entirely.

Step 4: Immobilise the Limb

Once the pressure bandage is applied, the next step is to immobilise the limb to prevent any muscle movement, which would encourage the venom to spread. Use a splint or make-shift support (such as a rolled-up magazine or firm object) to keep the limb as still as possible.

You can secure the splint in place using a piece of cloth or another bandage.

Additional Considerations and Recommendations

Avoid Removing the Bandage: Once the pressure immobilisation bandage is applied, it should not be removed. The bandage should remain in place until the patient arrives at an advanced medical facility to take over the treatment.

Keep the Victim Hydrated: If the victim is conscious and alert, offer small sips of water to keep them hydrated. Avoid giving them anything to eat or drink if they are not fully conscious.

Conclusion

The application of a Pressure Immobilisation Bandage is a critical component of paramedic care for snake bite victims in Australia. It is a simple, effective technique that can significantly slow the spread of venom and improve the chances of survival. Keeping the victim calm, applying the bandage, and immobilizing the limb can provide life-saving care and improve the chance for survival.

References

Australian Resuscitation Council (ARC). (2020). First Aid for Snake Bites. Retrieved from https://resus.org.au

Fenner, P., Harrow, P., & Ma, J. (2017). Snake Bites: Current Trends in Management. Medical Journal of Australia, 206(4), 155-160.

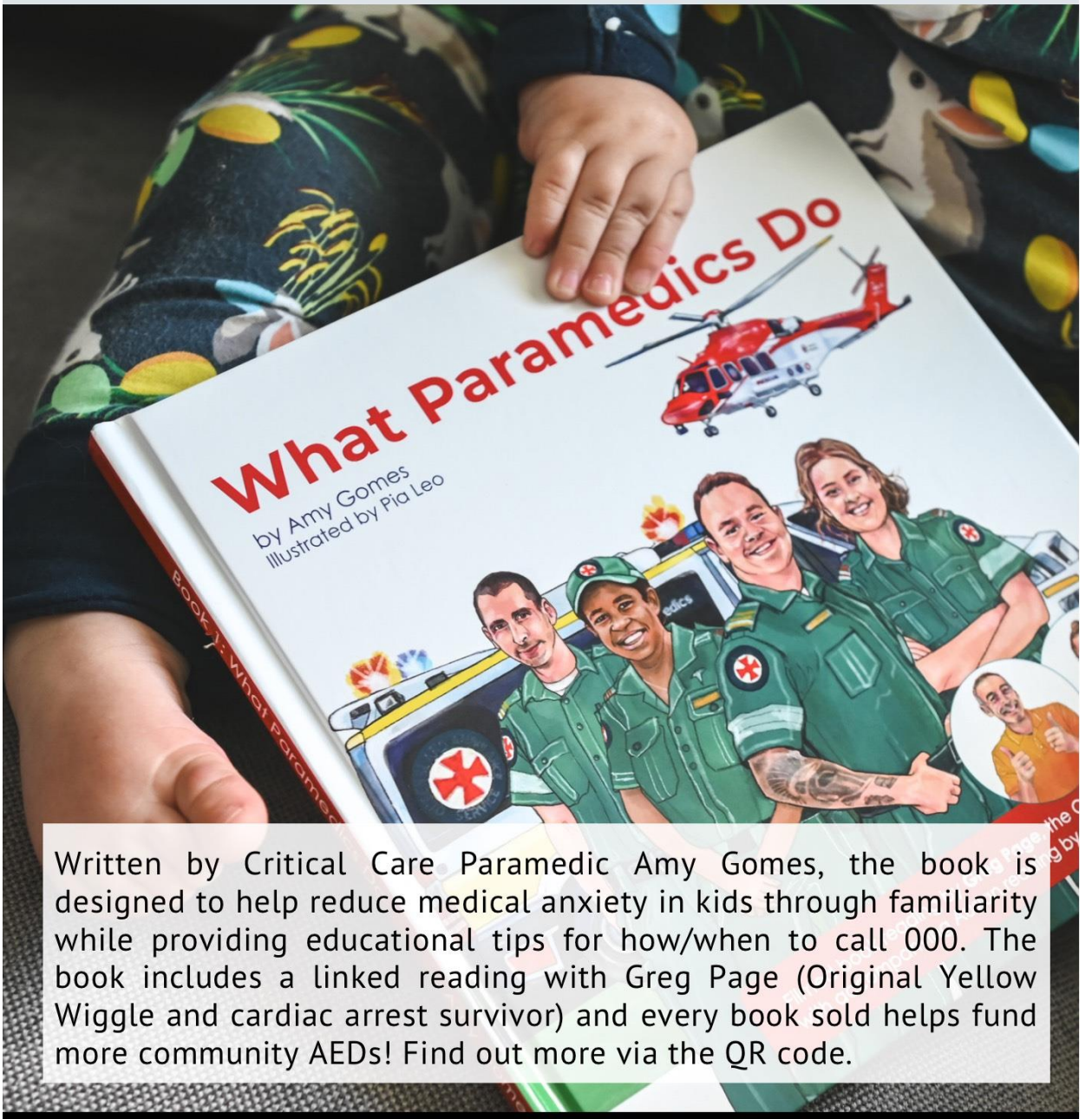
NSW Health. (2021). Snakebite First Aid. Retrieved from https://www.health.nsw.gov.au

Tan, J. (2019). First Aid for Snake Bites: Recognizing and Managing Venomous Snake Bites. Australian Journal of Emergency Care, 45(6), 1122-1130.

Whittaker, G., & Brown, P. (2019). Clinical Management of Snakebites: A Guide for Health Professionals. Australian Institute of Tropical Medicine.

WHAT PARAMEDICS DO

BY AMY GOMES



Written by Critical Care Paramedic Amy Gomes, the book is designed to help reduce medical anxiety in kids through familiarity while providing educational tips for how/when to call 000. The book includes a linked reading with Greg Page (Original Yellow Wiggle and cardiac arrest survivor) and every book sold helps fund more community AEDs! Find out more via the QR code.

www.onelittleheart.com.au

AMAZON BEST SELLER

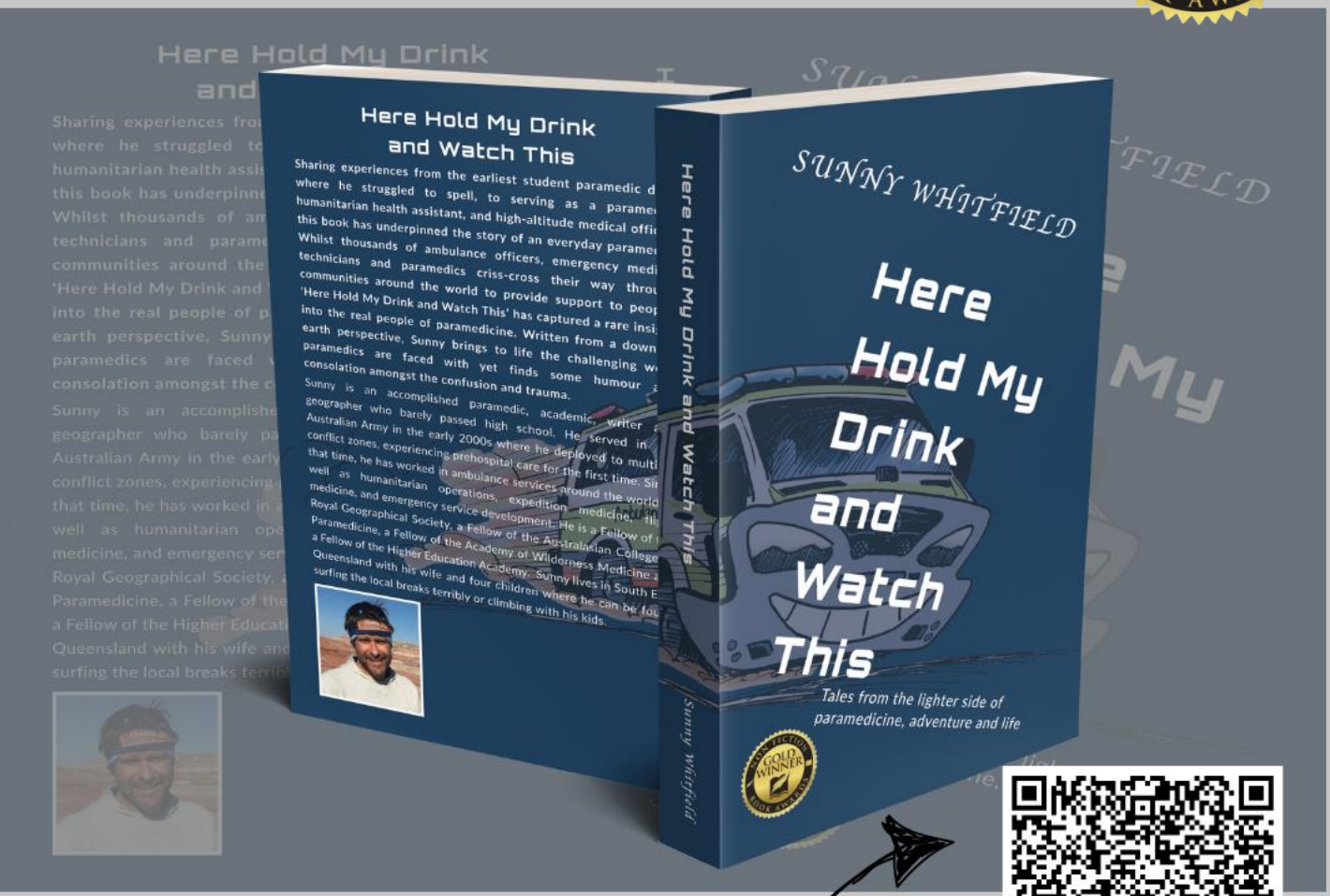
PURCHASE HERE

Customer reviews
★★★★★ 4.9 out of 5

NON FICTION SILVER WINNER BOOK AWARDS

Available here

AWARD WINNING BEST SELLER



PURCHASE HERE

Available Here

Drug Directory

Ondansetron

Why is my patient taking it?

- ✓ Prevention of chemotherapy-induced nausea and vomiting
- ✓ Prevention of radiation therapy-induced nausea and vomiting
- ✓ Prevention and treatment of postoperative nausea and vomiting
- ✓ Off-label use for morning sickness and hyperemesis gravidarum in pregnancy
- ✓ Management of vomiting in gastroenteritis, particularly in children

When shouldn't you use it?

- ✓ Patients with a history of QT prolongation
- ✓ A 2023 meta-analysis found that oral or intravenous ondansetron administration led to statistically significant QT prolongation, particularly in patients over 18 years old.
- ✓ A prospective observational study in adult emergency department patients showed that 4 mg IV ondansetron caused a mean QTc prolongation of 20 ms (95% CI: 14-26 ms)
- ✓ Patients taking Apomorphine (Parkinson's drug)
- ✓ Concomitant use of apomorphine and ondansetron can cause profound hypotension and loss of consciousness.

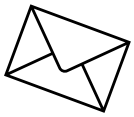
Other drugs that can be used in combination for nausea and vomiting.

- ✓ Metaclopramide (in combination)
- ✓ Dexamethaxone (in combination)
- ✓ Droperidol (low dose, think 0.5 - 1mg)

Side effects to look out for.

- ✓ Constipation (most common)
- ✓ Acute dystonic reaction (very rare)
- ✓ Dysrhythmias (Bradycardia/asystole if pushed rapidly - rare) - push slow if IV.

An Open Letter



Got something worth broadcasting?
Open letters can be sent to hello@theshiftextension.org

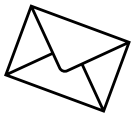
Far too often, students and graduates are scared off from publishing their work by ill-informed academic staff. Often it is simply the misunderstanding between student and staff their rights and obligations concerning the publication of their work. Universities worldwide have established policies regarding the ownership of intellectual property (IP) created by students, including those in paramedic programs. These policies determine whether students retain ownership of their work or if the university claims rights over it. Understanding these policies is crucial for students who wish to publish their work without seeking permission from university staff.

CQUniversity
CQUniversity's Intellectual Property and Moral Rights Policy outlines that, in the majority of cases, students own the copyright for any material they create. However, if students wish to post their work to an external site or publish it in another form and have included copyright material owned by a third party, they will need to seek permission from the copyright owner for that use.

Queensland University of Technology (QUT)
QUT's Intellectual Property Policy specifies that the university owns all intellectual property created by senior staff, academic, and professional staff members in the course of their employment. However, QUT recognizes that students personally own intellectual property that they generate in the course of their studies and research. Therefore, students have the right to publish their work without seeking permission from university staff, unless specific agreements dictate otherwise.

Griffith University
At Griffith University, the Intellectual Property Policy stipulates that all IP created by students, including postgraduate students, is owned by the student who created it. The university considers that students have ownership of the IP directly related to their research project unless other arrangements have been mutually agreed to in advance. This means that students have the right to publish their work without needing permission from university staff, provided no prior agreements dictate otherwise.

An Open Letter



Got something worth broadcasting?
Open letters can be sent to hello@theshiftextension.org

University of Tasmania (UTAS)
The University of Tasmania's Intellectual Property Policy specifies that the university owns all intellectual property, research data, and primary materials created by an employee in the course of their employment duties. However, intellectual property created by a student is owned by the student, subject to any agreement by the student to assign that IP and Indigenous Cultural and Intellectual Property (ICIP) rights. Therefore, students have the right to publish their work without seeking permission from university staff, unless specific agreements dictate otherwise.

Victoria University
Victoria University's Copyright Policy provides a framework for university staff and students for using third-party copyright material for educational and research purposes. While the policy does not explicitly state the ownership of IP created by students, it emphasizes the importance of respecting copyright laws and obtaining necessary permissions when using external materials. Therefore, students should consult the policy and seek guidance from university staff to understand their rights and obligations regarding the publication of their work.

University of Western Sydney (UWS)
UWS's Intellectual Property Policy states that the university owns all intellectual property created by staff in the course of their employment. However, students retain ownership of the intellectual property they create, provided it is not created in the course of their employment or under a specific agreement that assigns ownership to the university. Therefore, students have the right to publish their work without seeking permission from university staff, unless specific agreements dictate otherwise.

General Considerations
You can see that most universities grant students ownership of their IP, which means you won the rights to your work. Although there are a few outliers who may claim rights over certain works, especially if university resources or funding were involved in their creation, students should review their institution's specific regulations regarding IP ownership to understand their rights and obligations concerning the publication of their work.

THE SHIFT EXTENSION

INTERNTIONAL STUDY TOUR

NEPAL

The Clinical Adventurer has been specifically designed to engage and immerse health students and clinicians in clinically relevant activities while they experience the people, food and culture of their host country.

Highlights

- Orientation phase
- Community clinics
- Trekking Annapurana
- Expedition Medicine modules
- Pokhara

APPLICATIONS OPEN for November 2025

REGISTER NOW

Contact Us

hello@theshiftextension.org

THE SHIFT EXTENSION

Reflective Learning (CPD) Report

Professional clinical practice requires you to reflect regularly on your clinical practice and on all aspects of your professional work. Reflection should occur as soon as possible following the event, to be contemporaneous and meaningful, even though the impact may occur a significant time after undertaking the CPD. This tool can be used to log personal reflection on your CPD activities associated with this publication. Article reviews allow up to one (1) hour of CPD to be claimed.

Article Title

_____

What was the outcome of you reviewing the article?

_____

_____

_____

_____

What was the learning need or objective that was addressed?

_____

_____

_____

Can you describe any further personal learning needs on this subject?

_____

_____

_____

_____

Name	**Date reflection completed**

THE SHIFT EXTENSION

Reflective Learning (CPD) Report

Professional clinical practice requires you to reflect regularly on your clinical practice and on all aspects of your professional work. Reflection should occur as soon as possible following the event, to be contemporaneous and meaningful, even though the impact may occur a significant time after undertaking the CPD. This tool can be used to log personal reflection on your CPD activities associated with this publication. Article reviews allow up to one (1) hour of CPD to be claimed.

Article Title

_____

What was the outcome of you reviewing the article?

_____

_____

_____

_____

What was the learning need or objective that was addressed?

_____

_____

_____

Can you describe any further personal learning needs on this subject?

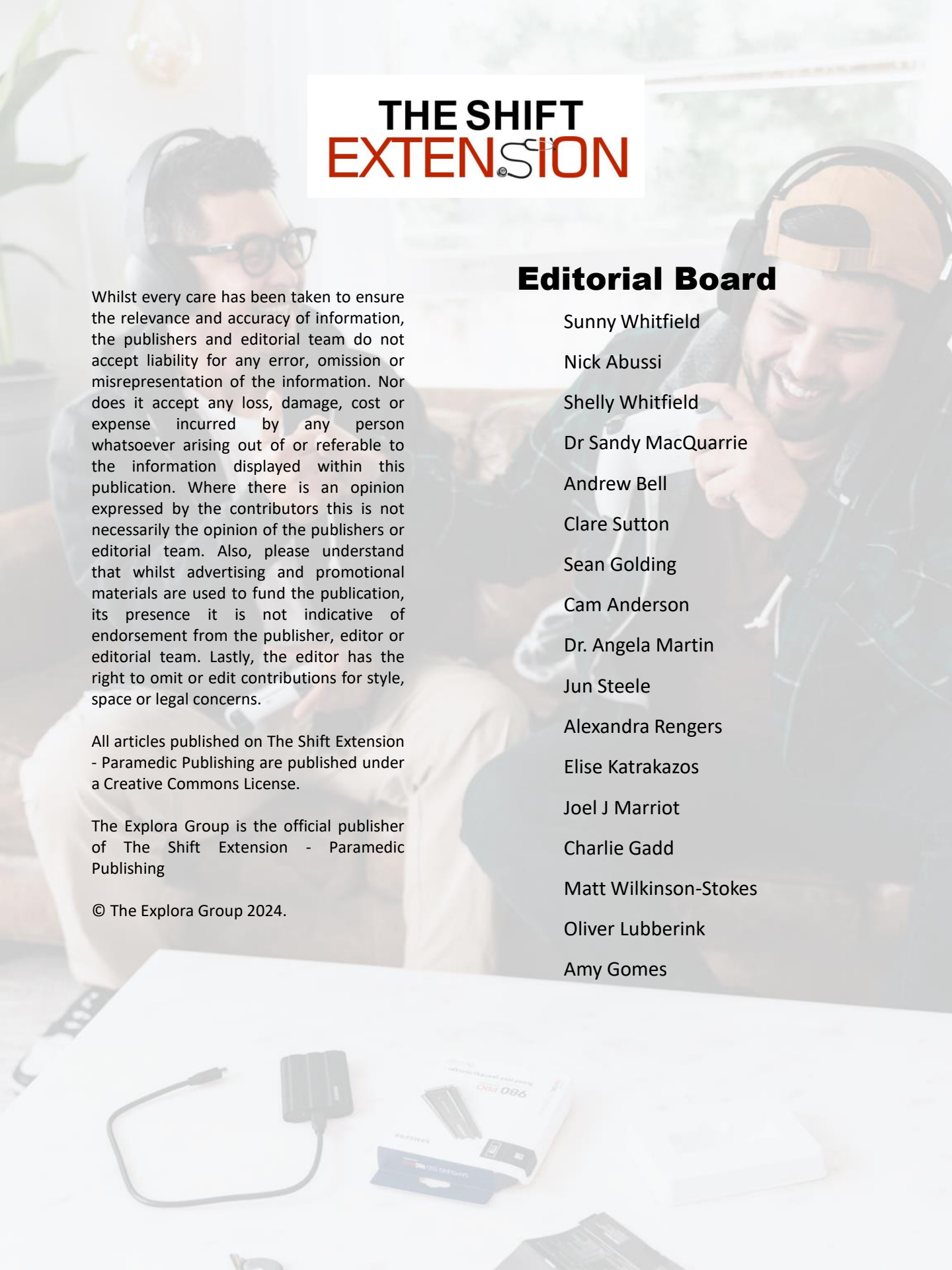
_____

_____

_____

_____

Name	**Date reflection completed**



THE SHIFT EXTENSION

The Explora Group is the official publisher of The Shift Extension - Paramedic Publishing

Editorial Board

THE SHIFT EXTENSION

PARAMEDIC PODCAST

S3 Ep3: Overcoming Imposter Syndrome

S3 Ep2: Clinical corner - Haemorrhage control

S3 Ep1: "There are no jobs" - Why they are wrong!

You can find all episodes below

https://open.spotify.com/show/7cQFgPuxd3paneLtmEDYZR

THE SHIFT
EXTENSION

Membership

Join our community

Benefits

- Early release podcasts
- Discounted and FREE events
- Group and individual mentoring
- Literature reviews
- Case studies
- and more

THE SHIFT EXTENSION

WWW.THESHIFTEXTENSION.ORG

SHOP NOW

FOR OUR SUPPORTERS' GEAR

FLOWCODE

PRIVACY.FLOWCODE.COM

THE SHIFT EXTENSION

PARAMEDIC PUBLISHING

The Shift Extension Industry Journal is a free-to-access, open-source publication that is committed to providing industry-relevant literature and information to enhance the development of the paramedicine profession through the sharing of information.

We welcome articles, anecdotes, drafts and suggestions from paramedics across Australasia and internationally. If you have ever wanted to contribute, write or publish, we want to hear from you!

Send us a message on our website
https://www.theshiftextension.org/

Join Australia's only clinical fellowship in Extreme Environment Medicine

www.aeem.com.au