MAY 2023 ISSUE 37

HEALTH EDUCATION COLLABORATIVE

A MESSAGE FROM OUR CEO

Bruce Greaves CEO/Director

Another busy month where I had the pleasure of doing a road trip from Melbourne to the Gold Coast, Brisbane, Sunshine Coast and Tamworth delivering clinical skills training to a broad range of clinicians. The discussions I had with many of the participants highlighted the differences in clinical approach to managing fractures from one facility to another. Why are we not following a universal management system? So many simple uncomplicated fractures such as a minor buckle fracture in a child, are being splinted and sent to fracture clinics with some patients waiting days to weeks to be seen just to be told all you need is a full cast. This I believe is deskilling clinicians in their ability to manage these patients. It is also putting excessive workloads on fracture clinics with patients that could be managed definitively at the initial point of care.

I also had the pleasure welcoming our new team member Becc on a trainer introduction day. Bec has a wealth of experience as a surgical assistant and will be facilitating our suturing and fracture management programs including facilitating some advanced suturing programs. We will be introducing Becc formally in our next newsletter.

CONTENT

Health Education Collaborative

EDUCATION UPDATE

Marg Villella

Director

Acute kidney injury (AKI)

Acute kidney injury, previously known as acute renal failure, represents a sudden and often reversible reduction in the kidney function, as measured by increased creatinine or decreased urine volume. AKI can lead to the accumulation of water, sodium, and other metabolic products. It can also result in electrolyte disturbances.

AKI is a very common condition, especially among hospitalised patients. It can be seen in up to 7% of hospital admissions and 30% of ICU admissions. According to KDIGO (Kidney Disease: Improving Global Outcomes), AKI is the presence of any of the following:

1. Increase in serum creatinine by 0.3 mg/dL or more (26.5 micromoles/L or more) within 48 hours
2. Increase in serum creatinine to 1.5 times or more baseline within the prior seven days
3. Urine volume less than 0.5 mL/kg/h for at least 6 hours.

Pathophysiology of AKI has always been traditionally divided into three categories: prerenal, renal, and post-renal.

Prerenal: results from any cause of reduced blood flow to the kidney. Examples include:

- Hypovolemia: hemorrhage, severe burns, and gastrointestinal fluid losses such as diarrhea, vomiting, high ostomy output.
- Hypotension from the decreased cardiac output: cardiogenic shock, massive pulmonary embolism, acute coronary syndrome.
- Hypotension from systemic vasodilation: septic shock, anaphylaxis, anesthesia administration, hepatorenal syndrome
- Renal vasoconstriction: NSAIDs, iodinated contrast, amphotericin B, calcineurin inhibitors, hepatorenal syndrome
- Glomerular efferent arteriolar vasodilation: ACE inhibitors, angiotensin receptor blockers

Intrinsic renal causes include conditions that affect the glomerulus or tubule, such as acute tubular necrosis and acute interstitial nephritis. This underlying glomerular or tubular injury is associated with the release of vasoconstrictors from the renal afferent pathways. Prolonged renal ischemia, sepsis, and nephrotoxins being the most common causes.

Post-renal causes mainly include obstructive causes, which lead to congestion of the filtration system leading to a shift in the filtration driving forces. The most common causes are renal/ureteral calculi, tumors, blood clots, or any urethral obstruction. The most common etiology of post-renal AKI is bladder outlet obstruction.

EDUCATION UPDATE

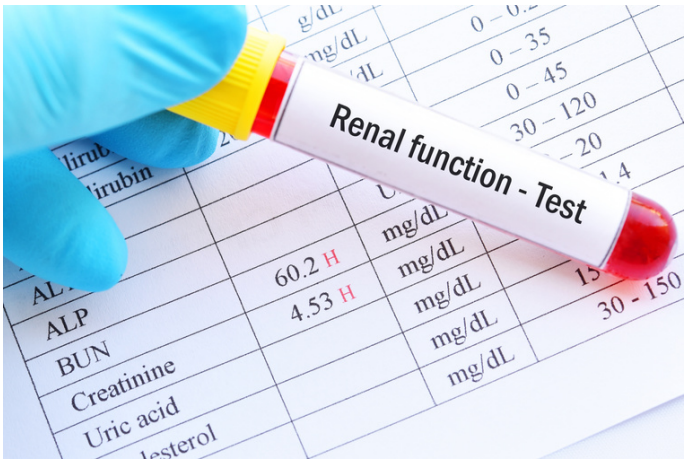
Marg Villella

Director

Except for post-renal AKI, most cases overlap between pre-renal and acute tubular necrosis type of AKI. The best way to determine if the AKI is pre-renal or not is a fluid challenge. As long as the clinical scenario doesn't contradict it, all patients with acute renal dysfunction should receive a fluid challenge. Patients require close monitoring of urine output and renal function. If the renal function improves with the fluid challenge, this is the best indicator of a pre-renal cause for the AKI.

AKI can occur in patients with preexisting chronic renal failure; therefore, it is crucial to make every effort to exclude all the reversible factors. The best indicator of reversibility is the rate at which the renal function declines. Differentials to be considered in AKI include:

- Renal calculi
- Sickle cell anemia
- Chronic renal failure
- Dehydration
- Gastrointestinal bleeding
- Heart failure
- Urinary tract infection
- Protein overloading
- Diabetic ketoacidosis
- Urinary obstruction



Health Education Collaborative

Suturing Course

Friday, 9 June 2023

ACRRM CPD ACCREDITED ACTIVITY 2023-2025

9 Educational activity hours

6.5 Performance review hours

6 MOPS (Emergency medicine) hours

About the course

This course provides the theoretical and practical essentials to close and manage noncomplex traumatic laceration, biopsies and surgical excisions.

The course is ideally suited to nurses, medical students and doctors that have little or no suturing experience or wish to advance their current basic skill of only using single interrupted suturing technique.

Mount Lawley Golf Club
1 Walter Road
Inglewood WA 6052
Time: 0845 to 1630

Register now

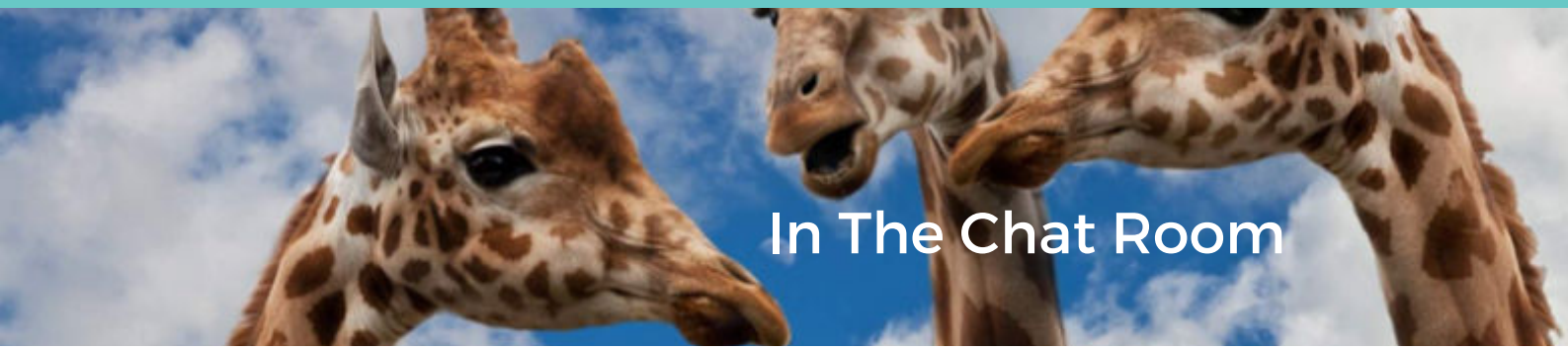
For more information

Bruce 0444 547036

www.healthec.com.au

Click here to register

Click here to see all our course dates



In The Chat Room

This month we interview Alison Pfitzner
Nurse Practitioner Candidate
Priority Care Centre (PCC) in Adelaide

HEC
Alison, can you tell us a little about your role as a nurse practitioner candidate?

Alison
The candidate role identifies nurses working towards becoming an endorsed Nurse Practitioner. The Priority Care Centres, where I work, are a group of SA Health funded clinics set up with the aim of reducing hospital emergency department presentations. People can be referred to us if they present to an ED and fall under the scope of a GP. This scope includes suspected fractures/sprains, lacerations/abrasions, non-septic cellulitis requiring IVABs, minor burns, sexually transmitted infections including post exposure prophylaxis, occupational workplace injuries, UTIs, IV rehydration, and paediatric minor illness, to name a few things we see.

I work alongside the GP and complete A-E assessments, suturing, casting, IV medications and wound care. My background is 10 years as an emergency nurse, but this clinic has provided the opportunity for me to learn some useful skills that I hadn't ever had a chance to experience in the ED.

HEC
What extra training have you done on top of your university studies that you felt would enhance your scope of practice?

Alison
The useful skills I mentioned above have included suturing and fracture management. I found the HEC courses for these skills online just as I was starting this role back in February, completed the online learning and attended the face to face training last week. I've also attended a paediatric common presentations workshop: ENT, respiratory, musculoskeletal etc. I've only ever worked in an adult ED and it had been many years since the undergrad paediatric lectures! I've also enrolled in a Sexual Health Certificate later this year, and even though we don't see acute presentations at the PCC, I've kept my ALS up to date.

HEC
What is the most challenging part of your job?

Alison
There's only ever one nurse practitioner candidate or nurse consultant working each day in my PCC. The juggling of referrals, patient care, documentation and data collection can be challenging if the day is busy. We always see the most people on a Monday (we tend to mirror the EDs in this regard) and the weekends are quieter. The other part I found challenging was stepping up into this more autonomous role after many years of being a senior clinical nurse. It felt like a bigger jump than any other role progressions.

HEC
How did the COVID pandemic affected your role and training?

Alison
I was still working in the ED at the start of the pandemic. It was initially weirdly exciting to be at the forefront of managing a pandemic, but that got tired pretty quick. I actually put my study on hold for 2020 as I felt I needed to protect myself from burnout. I left ED at the end of that year, and I've been working in hospital avoidance strategies since.

HEC
What is the best part of your job?

Alison
It's always the people! Interactions with patients, being allowed that brief glimpse into someone else's lived experience has always been fascinating to me. The privilege of looking after someone during what might be the scariest time of their lives was something I never took for granted in the ED. These days, saving someone a few hours of waiting in that ED is the thing that makes my shift a happy one!

HEC
What is the part of your job you like the least?

Alison
Admin! The PCCs are a new(ish) initiative, and we collect lots of data about our presentations to ensure ongoing funding.

HEC
Once a fully qualified NP what area/where do you hope work in the future?

Alison
I'd really like to work in sexual health, women's health or within the LGBTIQ+ health space.

HEC
What do you do to relax and escape after a busy day/ week at work, what's your favourite pastime, hobby?

Alison
Once a week for the last few years I've been going to No Lights No Lycra. It's dancing in the dark, in comfy clothes, in a safe space. No embarrassment about your dorky moves because no one can see you – just joyous movement to dance music. It started in Melbourne over 10 years ago and is now worldwide. Would recommend for stomping out the week's frustrations!

Thanks Alison for sharing your story

HEALTH AND WELLBEING

"IMMUNITY"

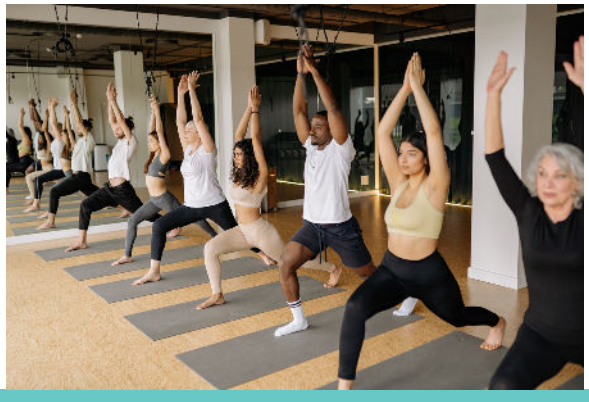
Sherryn Lethlean

We have discussed being sedentary and the negative effects of this, and last month we went over the importance of adequate sleep and recovery time, all of which will negatively impact your health if you are not getting adequate amounts. This month I would like to discuss factors that can increase your immunity overall. With the winter months now upon us, there are many viruses circulating that could leave you feeling a lot less than energetic and can lower your immunity making you more susceptible to further infections.

When a person is infected with a virus, they often feel fatigue, have a headache and less motivation to be healthy. Even if you don't have a severe virus it can impact your health and fitness for a good month or two.

So what can we do to improve our resistance to infection? The first line of course is your body's own defences, to ensure that you are functioning to your full capacity, however we all know that life also gets in the way - work, children, social life etc can all cause disruption to eating healthy, getting adequate sleep and exercising.

The key here is to be consistent and engage in as many health promoting activities as possible!



HEALTH AND WELLBEING

"IMMUNITY"

Here are some ideas to kickstart your immunity:

- First line is absolutely to get adequate sleep. It plays such a large role in immunity. If you cant get a long sleep, then ensure that what you do get is quality sleep

- Avoid or limit alcohol - it may feel like it helps you get to sleep, but studies have shown that it actually inhibits quality sleep and is not a true restful state - it is essentially a sedative, rather than your body naturally falling into its restfull state needed to repair and rejuvenate

- Physical activity - absoultely key. If you feel a cold coming on or a bit run down, this is actually not the time to stop all exercise. Some studies also show a link between performing high intensity bouts of exercise when you first feel a cold coming on, in which it may actually thwart the infection from progressing entirely - this is partly due to the increase in temperature created, and the competing for the uptake of oxygen which help to kill viruses - either way, unless you have a fever or feel already very unwell, then keep moving.

- Eat a healthy diet - we all know this one, but it's proven to improve immunity and reduce illness overall. Eat your veggies!!

- Drink plenty of filtered water each day - your body is 90% water - without enough, your cells cannot function optimally - cell metabolism for energy, waste removal and even fat burning is impaired.

Finally, it is extremely important to be vaccinated for serious illnesses. If you are fit and healthy you will tolerate a vaccine even better, and influenza vaccine for example is extremely well tolerated with minimal side effects. I will cover vaccination and infection control in my next edition, but even the healthiest of people have been struck down by the nasty flu viruses and it can leave you feeling fatigued for weeks.

So go get your PJ's on and jump in to bed, set your alarm to get up with a large water bottle by your bed, and go for that walk in your winter woolies. Don't let the cold months allow you to become sedentary as this is when you really need to be active the most to thwart off infections.

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Want to Get Involved With Us?

Do You Have Exceptional Clinical Skills and knowledge?
Want to join our growing team of likeminded clinicians and course developers?
Have an idea for developing a clinical program/training course big or small?
Want to develop a structured in-service program for your organisation?
Want a bespoke teams training program developed for your Emergency Department or Urgent Care Centre by experienced emergency department clinical nurse educators?

Our program base is expanding to cover a broad range of health professions

Health Education Collaborative is a solely clinician owned and opperated organisation.
The people at HEC organising developing and facilitating programs are clinicians.
All course developement is by undertaken by clinicians working with clinical experts and health organisations.
When you contact us, you are talking to a clinician, so we speak your language.

HEC is all about promoting exceptional clinical skills and practice through training and education, innovation in health care and most importantly working with our clinical colleages

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