

THE RALPHER

AUTUMN EDITION 2022



HEY!

You've already met Marvin on the front cover, a gorgeous boy treated for atresia ani; he's doing really well. Below you'll meet Charlie - whose story also has the loveliest of endings - as we kick off our Autumn issue of The Ralpher.

The rest of this issue is packed full of insights and tips from our nursing team, some medicine resources from our Internal Medicine specialist, Hannah, and we've also included some non-clinical stuff on workplace culture and day-to-day tips to support wellbeing from our team. Enjoy!

TEAM RALPH 

Tales from the clinical floor



Charlie, a 4-week old Jack Russell Terrier, was referred to our Orthopaedic team for investigation and management of sudden onset of right thoracic limb non-weight bearing lameness.



RIGHT ELBOW

LEFT ELBOW

At presentation Charlie was bright and alert. Radiographs taken under sedation showed a rare congenital luxation of the right elbow joint. Congenital elbow luxations are divided into three subtypes: the first is more common in large breed dogs (type I or humero-radial luxation), the second is more frequent in small breed dogs (type II or humero-ulnar luxation) and the third does not have breed predispositions and affects both radius and ulna. Charlie's X-rays confirmed a type II humero-ulnar luxation.

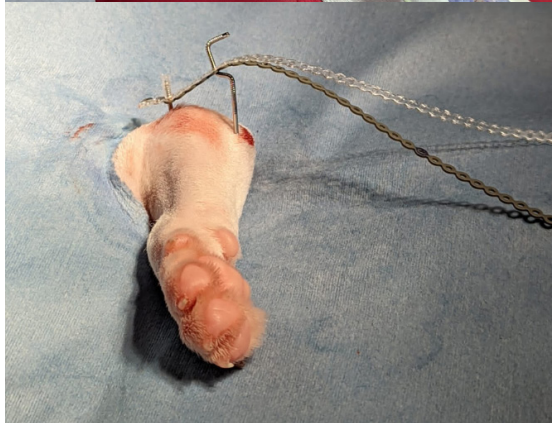
Fluoroscopic-assisted surgical reduction of the luxation was performed using a dynamic transarticular external skeletal fixator.

A pin was driven into his ulna and another into the distal metaphysis of his right humerus. The elbow was reduced and kept in reduction by connecting the two pins with an orthodontic elastic rubber band. Charlie recovered well from the procedure.

The implants were explanted 2 weeks after surgery and the elbow appeared stable and in a normal anatomical position.

Charlie continued to be hospitalised for daily physiotherapy and nursing care. His elbow was

Tales from the clinical floor



no longer luxated but was now very stiff with marked loss of range of motion. Charlie could not extend his elbow, he was lacking ~ 25 degrees of extension and only had a few degrees of pronation. Initially his rehab concentrated on very gentle stretches to gain extension while not luxating the joint again and gait re-education (or in Charlie's case learning to walk with 4 legs for the first time). The more he was able to walk and bear weight on the leg, the better he became.

Charlie was discharged from hospital with instructions for daily supervised walks on a surface with adequate grip, and regular physiotherapy including stretches to target all ranges of motion and strengthening exercises for the whole limb.

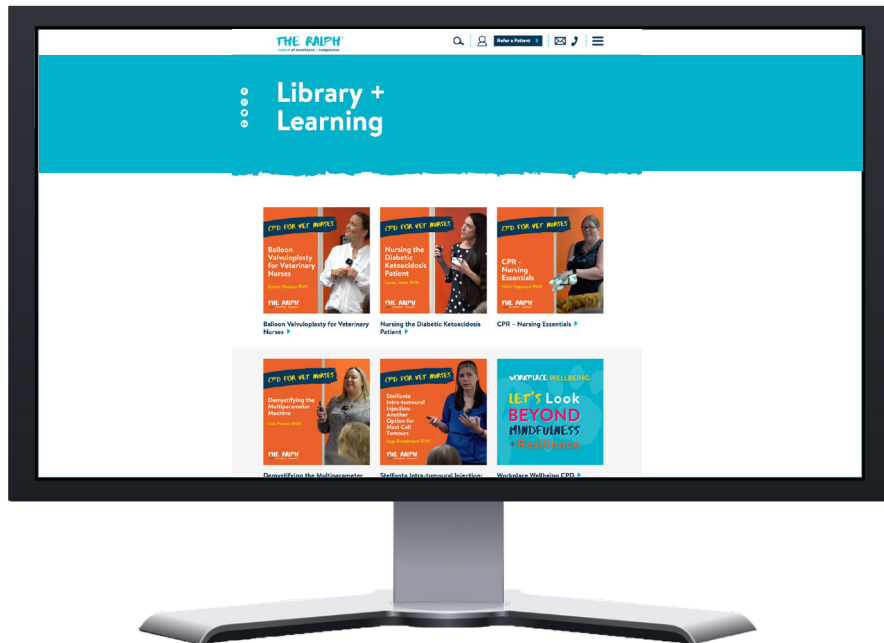
Charlie's case was special for many reasons. Both his condition and treatment are barely reported, and without his family practice looking out for him he would have sadly been euthanised. We're delighted that he has now found a new home with one of our team members; he now has full and pain-free range of motion in his elbow and is as sparky and playful as you'd expect a puppy to be.

"CHARLIE IS THE HAPPIEST BOY. HE IS GETTING STRONGER EACH DAY AND IT'S INCREDIBLE TO SEE THE DIFFERENCE FROM WHEN HE FIRST ARRIVED AT THE RALPH. WE LOVE HIM SO MUCH AND COULDN'T IMAGINE LIFE WITHOUT HIM."

- Charlie's carer, Jessi



IN CASE YOU MISSED IT...



We were delighted with the turnout for our first Nurse Discovery Day, and hope those of you who joined us found the sessions insightful and rewarding.

If you missed it this time, why not check out the recordings of our Nurse CPD sessions on our website's Library + Learning page?

Balloon Valvuloplasty for Veterinary Nurses - Emma Hudson

Nursing the Diabetic Ketoacidosis Patient - Laura Jones

CPR – Nursing Essentials - Nikki Hayward

Demystifying the Multiparameter Machine - Lisa Pearce

**Stelfonta Intra-tumoural Injection:
Another Option for Mast Cell Tumours - Inge Breathnach**





Our Internal Medicine Specialist, Hannah, has written some diagnostics, stabilisation and pre-referral tips to help you with your medicine cases.

Check 'em out, cut 'em out, and stick 'em up!

DIABETIC KETOACIDOSIS (DKA)



What tests should I perform in practice?

- Quantitative measurement of ketones in blood (>1.8mmol/l) is not always possible -> ketonuria on a urine dipstick is a good baseline. HOWEVER, this can **underestimate** degree of ketosis (as β -hydroxybutyrate is not measured)
- Blood gas to check for acidosis: if not feasible, it is reasonable to assume a sick, ketotic diabetic patient is acidotic
- Blood glucose measurements: may need to be as frequent as every 2 hours whilst stabilising
- Electrolyte concentrations: may need to be as frequently as every 4-6 hours whilst stabilising

How should I stabilise?

- Addressing fluid imbalance is the first priority: this will help to reduce hyperglycaemia and ketonaemia
- Be aware the potassium concentration is likely an underestimate of total body potassium, which may drop rapidly with fluids and/or insulin
- Start insulin once acute fluid imbalances addressed: if referring, then it is reasonable not to start neutral insulin prior to transport

Top tips prior to referral

- Ideally obtain urine sample (cystocentesis or free-catch) prior to significant fluid therapy
- Attempt to stabilise blood pressure and life-threatening electrolyte derangements prior to transport -> this is more important in the first few hours than starting insulin therapy



OESOPHAGEAL / GASTRIC FOREIGN BODY



What tests should I perform in practice?

- **Radiographs** of the thorax/abdomen: a single lateral radiograph is often enough to confirm the presence of a foreign object
- If the suspected foreign body is not obviously radiopaque (e.g. cloth, hair band, toy) then performing a radiograph **with an equivalent object** alongside the patient can help to identify it

How should I stabilise?

- Most patients do not require specific stabilisation
- If a gastric foreign body is of soft material or relatively small, emesis could be considered prior to referral (as long as the risks are discussed)

Top tips prior to referral

- If a fragment of linear foreign body is still protruding from the mouth (e.g. fishing line) then tie end loosely to the patient's collar to help anchor without putting extra tension on the line
- Instruct carers not to feed prior to referral

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OUR ENDOSCOPY ANIMATION EXPLAINS THE ENDOSCOPY PROCESS FROM START TO FINISH - INCLUDING A SNIPPET ABOUT FOREIGN BODIES. CHECK IT OUT ON OUR YOUTUBE CHANNEL, AND FEEL FREE TO SHARE IT WITH YOUR COLLEAGUES AND PET CARERS!

HYPOADRENOCORTICISM ("ADDISON'S DISEASE")



What tests should I perform in practice?

- If relatively low index of suspicion, consider starting with a basal cortisol: > 55 nmol/l **excludes** hypoadrenocorticism
- If high index of suspicion, perform an **ACTH stimulation test**: 5mcg/kg tetracosactide IV with cortisol measurement 60 minutes later

How should I stabilise?

- Address fluid imbalances (may require boluses); this is more important for stabilisation in most patients than starting steroid supplementation
- Address hypoglycaemia if present
- Begin to address electrolyte changes (**slowly!**)
- Dexamethasone (0.05-0.07mg/kg IV) - ideally wait until after ACTH stimulation test, however dexamethasone does NOT cross-react with cortisol assays

Top tips prior to referral

- Patients with sole glucocorticoid deficiency may not have electrolyte derangements
- In an azotaemic patient, ideally collect urine for a USG prior to IVFT (note: USG can be low in an Addisonian patient)
- If easier, ACTH stimulation blood tubes can be sent with patient rather than to the lab

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DO YOU LIKE THESE HANDY TIPS?

Feel free to get in touch and let us know.
There's plenty more where these came from!

heretohelp@theralph.vet | 01628 308330

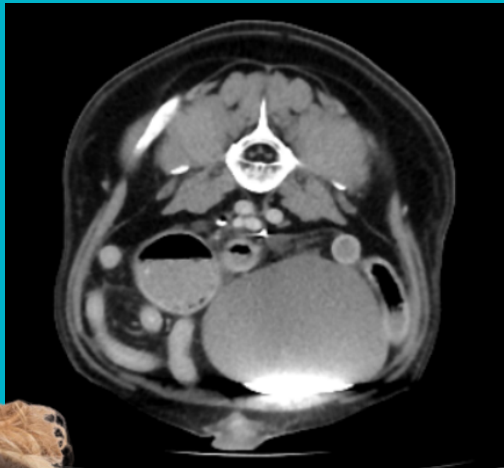
VETERINARY NURSING: FROM ADMIT TO DISCHARGE

ICU nurses Alice and Etta share their memorable cases, and the vital role nurses play in treating critical patients from admit to discharge.

FOZZIE BEAR

Fozzie Bear is a lovely, cuddly 8-year-old boy who was referred to us from his family practice for lethargy, melaena, haematemesis and anaemia.

A CT scan of Fozzie's abdomen showed a suspected actively bleeding gastric ulcer; the radiologists could see contrast leaking from the gastric vasculature into the stomach.



I was Fozzie's primary RVN assigned to care for him in our ICU that day. Our role is to keep patients comfortable, administer medications, monitor vital signs, draw bloods, maintain central lines, intravenous catheters, drains, feeding tubes, faecal foley catheters, intravenous fluids, continual rate infusions (CRIs), enteral nutrition, wound management and much more.

It was clear Fozzie was very poorly when he arrived. He had passed a large volume of melaena and was breathing rapidly. During our checks he was found to be tachycardic with a heart rate of 170bpm with very poor, thready pulses, his mucus membranes were very pale and tacky, and the capillary refill time was prolonged at 3 seconds. His blood pressure was 160mmHg systolic, he was non-ambulatory and obtunded.

A naso-gastric feeding tube had been placed and a large volume of haemorrhagic fluid was aspirated from his stomach. He was actively bleeding from the stomach ulcers and was hypovolaemic. Fozzie was given multiple packed red blood cell (PRBC) transfusions, fresh frozen plasma (FFP) transfusions and multiple boluses of crystalloid fluids. It was a constant battle to keep Fozzie cardiovascularly stable due to the volume of blood he was losing from his stomach. The



Alice

CONTRAST LEAKING
IN TO FOZZIE'S
STOMACH

By nurses, for nurses

CT scan had diagnosed an area of active bleeding from the stomach and this was not stopping, so we could not easily maintain Fozzie's blood volume.

At one point I was monitoring Fozzie and his heart rate shot up to 220 bpm. His pulses felt thready and it was not possible to get a blood pressure reading. He was very pale and difficult to rouse, he extended his legs and neck and let out a groan – I thought we were going to lose him. He had deteriorated rapidly and was severely hypovolaemic.

This was an emergency situation. A large unit of PRBC was rapidly infused by squeezing the bag (usually a blood transfusion is given over 4-6 hours with close monitoring and observation but in this situation blood was required very quickly!). He stabilised and our ECC Specialist, Rachael, made a brilliant, brave decision for Fozzie to undergo an endoscopy under general anaesthesia to see what could be done.

During the endoscopy a moderate but focal area of ulceration was seen and Fozzie was taken to theatre for a gastrostomy and removal of the ulcerated area. Our amazing surgeons, anaesthetists and theatre team were successful.



Fozzie needed intense, constant post-op monitoring as his condition was so unstable – he had a total of six units of PRBC and three units of FFP. I learnt that this is called a “massive transfusion”, this seems obvious but is an actual medical term!

I have been involved with and administered many blood transfusions since working at The Ralph but this was very different and like nothing I had been involved with before: we had replaced his total blood volume!

Fozzie went on to make a great recovery. By the morning after his surgery he was able to go out for a walk, the bleeding had stopped and he was cardiovascularly stable. He demanded many cuddles! He is such a great dog, we all became very fond of him, and his carers are so dedicated and lovely. I have never seen such a sick dog make such a rapid recovery. We really did save his life that day.



To any RVN nursing a patient in this situation, my two main pieces of advice would be:

- 1) Monitor, monitor, monitor
- 2) Trust your gut!

The monitoring required for these types of patients doesn't always have to involve fancy multi-parameter machines. Monitoring heart rate, pulses, mucus membrane colour and blood pressure is so important, and also very importantly looking at your patient and assessing their mentation, demeanour and behaviour.

Trusting your gut can take time but if you feel things aren't right, or that your patient's vital parameters are deteriorating, speak up and tell the vet your concerns.

JOSEPHINE



When I first started nursing Josephine I had no idea what her character was like because she was unresponsive. She later proved to be a great character, loving and affectionate, and a real little fighter to come through as she did.

10-year-old Josephine was referred to The Ralph with a 48 hour history of vomiting, diarrhoea, collapse and tremors which subsequently developed into seizures. She had last been in season 2-4 weeks previously, and had recently started to lick her vulva. On presentation she was comatose and needed fluid resuscitation. Diagnostics performed over the next 24 hours included blood tests, point of care ultrasound (POCUS), chest X-rays, cytological examination of abdominal fluid, and specialist ultrasound examination. On the basis of the findings, Josephine was taken to surgery for a ruptured pyometra with secondary septic peritonitis. An ovariohysterectomy was performed and a Jackson-Pratt negative pressure drain placed.

When I first met Josephine, it was the morning after she had been admitted and she was still mostly comatose, but becoming

reactive to noise - she would raise her head slightly, but there was no other reaction. In cases like these, with a critical patient, it is very important to monitor the patient very closely because even small changes on the monitor can signal a deterioration in condition. For this reason, using a multi-parameter monitor, we monitored ECG, SpO₂, temperature, and oscillometric blood pressure. Josephine was also watched very closely for changes in breathing patterns - rate, effort and chest auscultation. It is very important to make sure that the patient is as comfortable as possible, not just with regard to systemic analgesia, but with actions such as lubricating Josephine's eyes very frequently as her blink reflex would be reduced and corneal ulcers could develop. As she was becoming reactive to noise, I put swabs into her ears so that she would not be bothered by the noise in the ICU. I also placed moistened swabs over her eyes to reduce the brightness.



A major challenge was in keeping Josephine clean and comfortable. Josephine had a purulent vulval discharge, therefore we were unable to place a urinary catheter because of the probability of transferring the bacteria into the bladder, increasing the chances of an infection. Josephine urinated frequently and copiously. Incontinence pads were placed so that it was immediately evident when urination had occurred. An added complication was the fact that she had a PICC line (peripherally inserted central catheter - invaluable in cases like this as medication incompatible with peripheral catheters could be used, and blood samples could be taken without further trauma to the patient), placed in her saphenous vein which needed to be kept clean and dry - contamination with urine would mean removal. To prevent this from happening, when the catheter was dressed, an extra thick layer of Soffban was used in combination with 2 layers of Vetrup. Disposable gloves were used between the layers of vetrup to act as a waterproof barrier. This worked well.

Josephine developed aspiration pneumonia and consequently the oxygen levels in her blood dropped. This was quickly picked up through SpO2 monitoring. An oxygen mask was used but this seemed to bother Josephine so a unilateral oxygen cannula was placed, using proxymetacaine, (a topical local anaesthetic), to first numb the area. This had two benefits - Josephine tolerated the cannula well, and as the oxygen was delivered directly into the nasal cavity, we could use a lower rate, reducing amounts used.

Josephine recovered very slowly from her emergency surgery, remaining intubated for many hours post-operatively. She continued to be supported by the intensive care team, and slowly but surely over the next few days she made steady progress until her

discharge from hospital 6 days later.

I was lucky enough to nurse Josephine both before and after her surgery, as well as later on in her journey to recovery when I finally got to know her better. Nursing her gave me extreme highs and lows: highs when she finally ate by herself and I was dancing around the room filled with joy and lows when she went to surgery and I was not sure if I would see her again. Nursing Josephine gave me the opportunity to use all my nursing skills, to problem solve in order to make sure that Josephine, at all times, was as comfortable as possible, and no aspect of her care was overlooked.

My advice to a fellow nurse dealing with a similar situation would be that no matter how much monitoring equipment is being utilised, there is no substitute for the human eye and therefore close attention to the patient themselves must always be maintained.



Etta



A CULTURE OF SAFETY, LEARNING AND CONTINUOUS IMPROVEMENT IN PRACTICE



WRITTEN BY DAN TIPNEY

Head of Culture, Patient Safety and Human Factors at The Ralph

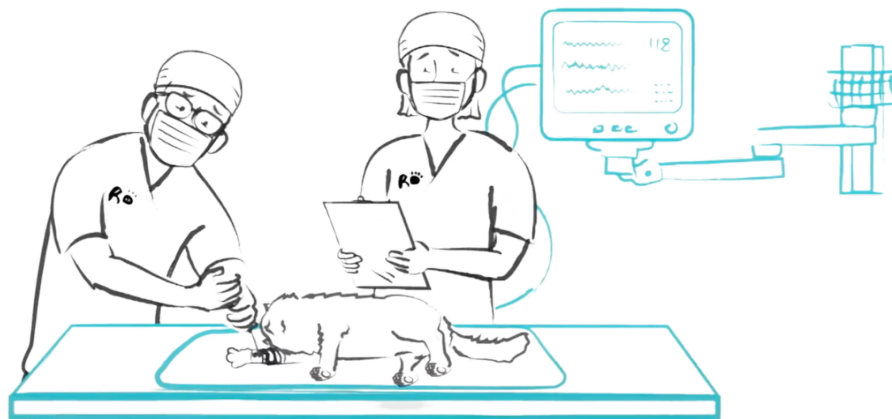
Within veterinary practice, the subject of safety is critical and can be considered from various angles. Firstly; patient safety, which could be described as minimising the risk of adverse effects to patients associated with their care and it is inevitably something that resonates strongly across our profession. Secondly; psychological safety relates to a working environment in which team members feel accepted and respected, with the belief that one will not be punished or humiliated for speaking up with ideas, questions, concerns, or mistakes. A sense of safety is a fundamental human need and feeling psychologically safe has repeatedly been found to be a key differentiator between higher and lower-performing teams across many sectors. There is a key link between these two aspects of safety, in that the psychological safety of healthcare teams has been found to have a profound impact on patient safety.



The reasons for the link between psychological safety and delivering safe patient care are many-fold and are often associated with topics such as team behaviour/civility, leadership and the perception of hierarchies. In addition, something which is pertinent to all practices is the subject of culture associated with learning, both in terms of learning from unexpected (adverse events/‘near miss’) events and positive events.

‘Just culture’ is an area which has been explored from the perspective of various safety critical professions over the last few decades. Key work in this area comes from safety experts such as Sidney Dekker and James Reason in environments including commercial aviation, nuclear power and healthcare. It is an ever-evolving subject that seeks to find a balance between the extremes of punishment and blamelessness, in which adverse events are no longer seen as meaningless, uncontrollable events, but rather as opportunities for organisations, systems and individuals to improve and develop. The term ‘fair and learning culture’ has been adopted at The Ralph as it encompasses the concepts of just culture in a language that is directly relatable to our core values and the work that we do.

A key element within the field of just culture is addressing the issue of blame. This is a common challenge faced by many professions and it’s easy to see why when retributive action often appears to provide a resolution following an adverse event or an error. However, years of research into



safety culture have shown that a focus on blame can be highly sub-optimal. Fear that is associated with the possibility of error, as is often the case when blame is perceived to be prevalent, not only affects wellbeing and ability to perform but also willingness to be open and honest. As a result, even if a safety reporting system (such as VetSafe) is in place, it is unlikely to reach its full potential and therefore greatly limits learning opportunities. Many years of development have led to the recent work by NHS Improvement, with whom our patient safety team at The Ralph have been very fortunate

to have collaborated. As such, we have benefitted from their evidence base, with the opportunity to apply the learning points to address issues that have significant implications on patient safety and team wellbeing.

Like any aspect of culture, there are no quick fixes and establishing 'norms' of behaviour that are conducive to psychological safety is a complex issue. However, the following points are tangible steps that can be made that contribute towards having a 'just' or a fair and learning culture...

- Explicitly communicate the need for, and the principles associated with, 'just culture' in your practice
- Consistently respond to unexpected events with a view to determining systemic learning points rather than individual errors. Ask 'why did it make sense at the time' and explore contributing factors
- Demonstrate empathy and compassion towards error
- Offer support in terms of further training/education where appropriate (research would suggest that less than 20% of adverse events are primarily associated with lack of technical/clinical knowledge or skill)
- Apply disciplinary action only when necessary, e.g. as a consequence of intentional harm or due to a wilful violation for personal gain (likely to be extremely rare)
- Provide a means of reporting adverse, near miss and positive events
- Show evidence of positive change and learning following reports and provide feedback when appropriate
- Offer support for 'second victims' following unexpected outcomes. Any case discussion or debriefing process should start with the opportunity to check-in with each other and address emotional needs first

MOMENTS FOR ME

We asked Team Ralph to share real examples of the little day-to-day things that they do for their wellbeing....

When I get home, I sit in my car outside my house for about 15 minutes and call my Mum for a chat before I head in the house to start my 'Mum jobs'.

Putting on music; I can get lost for ages just listening to all the tracks I love.

I do some breathing techniques to regulate myself and acknowledge what's going on for my mind and body. I don't do this at set trigger points, but I will often do this in moments I have by myself. Waking up, sitting in traffic, waiting for an appointment or in bed before I go to sleep.

I have triggers at different times in the day where I pause for 30 seconds to notice and acknowledge what's going on in my body/mind. My triggers are putting my seatbelt on, washing my hands and boiling the kettle.

It's going to the gym for me....just an hour of weight training with my headphones on where I can shut out the world and just focus 100% on me, plus the endorphin release afterwards makes me feel like the best version of myself - mum, vet nurse and me! Really helps/helped me with battling my PND.



SARAH

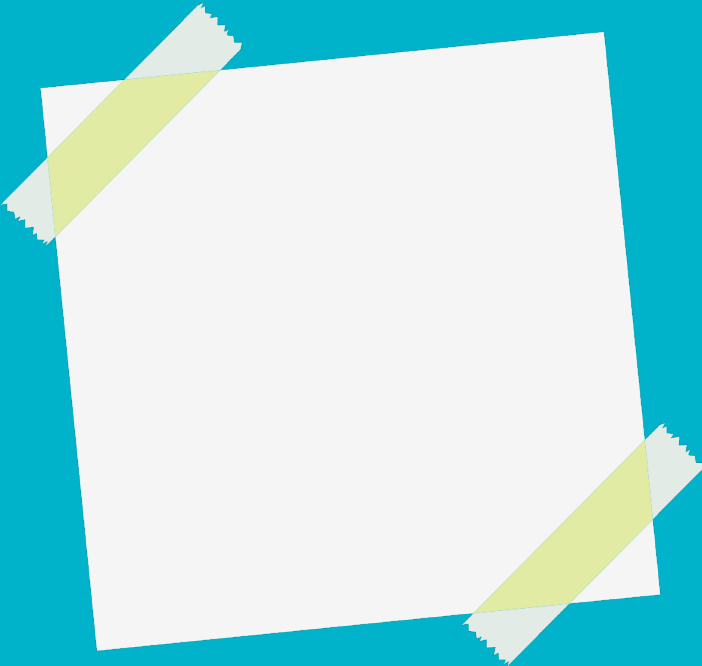
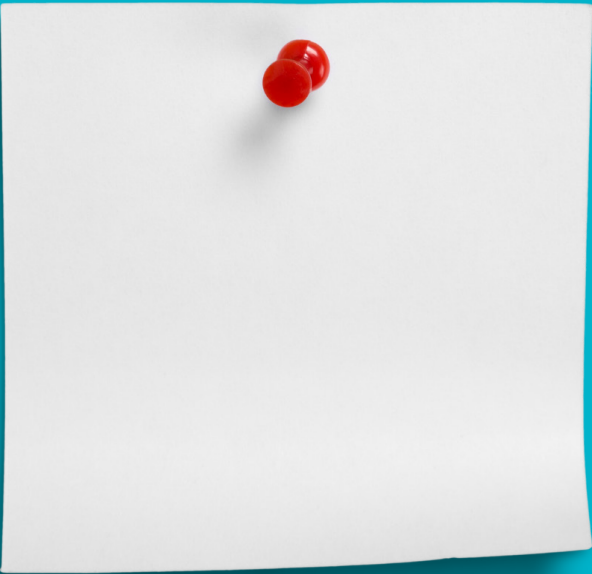
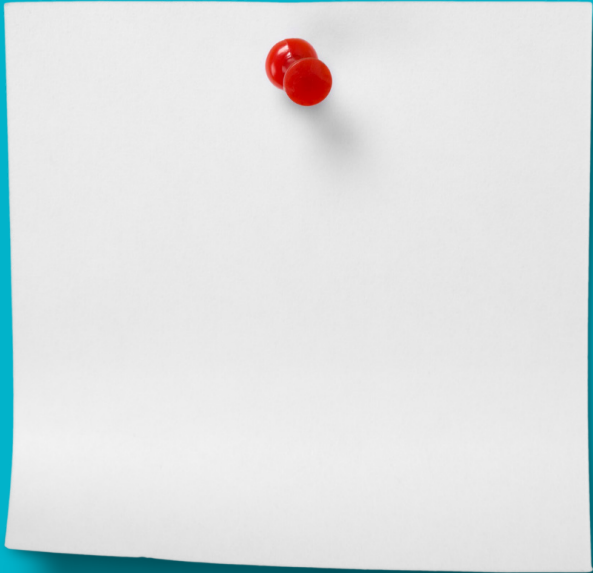
KATIE

DAN

ALANNA

GEMMA

WHAT MOMENTS DO YOU TAKE FOR YOUR DAY-TO-DAY WELLBEING?



FIGHTING AGAINST NEUROPHOBIA



**MAYDAY!
MAYDAY!
NEUROLOGICAL
EMERGENCIES**



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