

E-Magazine

Online Publication

November
2018 Edition



College of Air and Surface
Transport Nurses
Section of the New Zealand
Nurses Organisation

www.nzno.org.nz/groups/sections/flightnurses
:Facebook Page: NZNO COASTN

COASTN COMMITTEE 2019



Left to Right: Lisa Black, Amanda Thompson, Rachel Pringle, Anju Sethi, Joanna Knight, Toni Johnston., Di Fuller, Angela Coward, Annie Bradley-Ingle (PNA)

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FROM THE EDITOR

Angela Coward



Hi All,

It is hard to believe that it is November already and Christmas is almost upon us. As always there will be some among us who will be required to work whilst Christmas and New Year celebrations happen around us. Such is the nature of our work, hopefully we will all get some downtime to enjoy family and friends.

This is the last E -Magazine for 2018 and I would like to thank of you that have sent in photos, round ups and recipes this year. Round ups have been a little slow in arriving this time around, hence the E-magazine is out a little later than anticipated. You will notice that we have the 'battle of the brownies' in this magazine, I challenge you all to try both and report back which was your favourite version of this classic! There were no photos sent in for this edition, so for the front page I have resorted to an old one of my own taken at the NASA centre in Houston for a bit of fun. As Buzz Lightyear would say 'To infinity and beyond!'

The COASTN committee have had a busy year as you will see from Toni's Chair report and Di's report on the work that the COASTN working committee has been doing in the background. COASTN continues to have strong nursing representation on the MBIE 8156 standard review which is ongoing at this stage.

The Whanganui flight team have shared a story that featured in their local paper, it is always nice to hear that our services are appreciated, I think that we often carry out our jobs not realising the impact that our short interaction with patients and families can have.

I would like to give special mention to the Christchurch team who have shared their experience in the hyperbaric chamber and their knowledge of DCI in their service round up. It is great to see nurses sharing knowledge and remembering that although we are all expert nurses we all come from different areas of expertise and we have a huge variety of experience between us.

This edition includes registration information for the COASTN aeromedical retrieval course in 2019 as well as details on upcoming conferences and post graduate studies offered in NZ. If you are aware of any upcoming conferences or meetings that may be of interest please let me know for the March 2019 edition. Don't forget that COASTN does offer grants for study/conference attendance which you may be eligible for, have a look at the link later in the magazine.

I wish you all a safe and happy festive season and thank you for your support in 2018!

- Angela .

CHAIR REPORT

Toni Johnston



Chair Report - Magazine Nov/Dec 2019.

Hello from the stormy South! Given the wild weather experienced widely across NZ it's hard to believe that the start of summer is supposedly only 2 weeks away. Central & Southern Otago resembled more of a Northern Hemisphere November, rather than our iconic Kiwi one! Not sure what other services have experienced but down here it has made for some interesting (if not very comfortable) trips. Roll on the REAL summer please. However, the change of seasons brings changes within populations & communities throughout NZ. Seasonal tourism to holiday hot-spots can put quite a stretch on local healthcare & emergency services, & may find flight/transport teams experiencing increases in workload to meet the increased demands. Having completed the Air New Zealand Queenstown marathon this past weekend it is a timely reminder of how such an event - with over 11,000 participants plus all of their supporters - can disproportionally stretch resources by comparison with metropolitan areas who could absorb this increase almost unnoticed.

As you are all well aware the new Air Ambulance contracts came to fruition on November 1st, ushering in new era of cooperation amongst what once were individual operators & services. This occurred the day before the Waikato Flight team hosted a very successful 1-day symposium. I had the pleasure of meeting Christine Craig from Waikato ICU who is currently the ACNM in charge of their transport team. Christine hosted me for a couple of hours - discussing their model of service delivery (where their service is integrated with ICU operations, not a stand-alone team), the equipment they currently utilise, & then a tour of the helipad (co-located onsite at Waikato Hospital). Being fortunate enough down south to have a large number of BK117 helicopters for our use it was great to experience other models of airframe that are utilised in services (such as Waikato's Bell - soon to be retired), to explore how & when services were established, and current models of service structure. The time in Hamilton was also an excellent to network with colleagues from throughout the country - to share common experiences, celebrate achievements, discuss differences, & generally hear how flight/transport nurses define themselves as specialty-practice nurses.

The symposium generated a lot of discussion: the wide variety of speakers provided something for everyone. There was robust debate over the MOH continuing restructure plans for air ambulance services, along with the National Medical director of St John promoting the substitution of some flight teams with Intensive Care/Paramedic teams. Case studies offered examples from both sides of the debate: the **"for"** stance from Tony (with the extra dural haemorrhage patient) versus the **"against"** presentation from Dr Annette Forrest which attested to the exceptional skill set & knowledge that flight nurses have & how that directly impacts patient care & survival. This is certainly not the end of the debate - expect to see more discussion around the concepts of "time critical" versus "skill critical"

CHAIR REPORT CONT ...

versus “time-&-skill critical” scenarios. Work with the MOH & pre-hospital & inter-hospital transport care providers will remain ongoing and thus it is critical that we as nurses seize any opportunity to participate in any such discussions whenever possible. Once again the COASTN committee is very grateful to the symposium organising committee for such a great event—and acknowledge the huge amount of work, time & effort involved.

I would like to take a moment to extend our condolences to the Wellington ICU & flight teams with the loss of their consultant Dr Peter Hicks. In addition to his clinical role within the ICU Peter was instrumental in setting up regional trauma services for Wellington, & held many other roles (clinical & leadership). His partner Nikki is a valued member of the Wellington flight team. Words cannot bring Peter back - just know that your colleagues from across New Zealand are thinking of you at this sad time. A clever, talented, delightful man taken too soon.

As the festive season draws closer I would like to thank every one of the COASTN membership for their hard work in what has been a challenging year for nurses & wish everyone a safe & happy Christmas & New Year period. If anyone is holidaying in the South please feel free to drop into Dunedin Hospital & see our new Critical Care Unit (hopefully we will have moved in by the time this goes to print - after some delays). I would also like to thank the members of the COASTN national committee for their time, expertise & hard work during the year, and acknowledge the invaluable assistance of our PNA Annie Bradley-Ingle (who works tirelessly to ensure we keep on track).

Here’s to the achievements of 2018 & looking forward to the challenges of 2019.

Toni Johnston



Gibbston Valley in early November.

COASTN SUB GROUP REPORT

Di Fuller



Work of COASTN Sub-committee

UPDATE
16/11/2018

National documents now out for consultation.

Prompted by changes starting to occur within New Zealand's aeromedical industry, at the COASTN AGM 2017 a remit was put forward: that there was a recognized urgent need to ensure appropriately trained professional flight nurses, working within their scope of practice, are recognized as the most appropriate healthcare professionals for inter-hospital transports and retrievals.

Work to support this included:

- Development of national standards outlining the required skill, experience and qualifications for flight nurses undertaking the transfer of critically unwell patients. This should clarify the necessary certification, competencies and standards for *all* flight nurses to ensure *national consistency* across services, regions and practice settings.
- Introduction of a credentialing pathway to ensure there is a reliable framework to enable consistency across the profession and the sector
- Definition of the role of flight nurses within the current and future aeromedical industry in NZ, with a position statement being developed outlining the vital role of nurses in the inter-hospital transport of critically unwell patients.
- Targeted activity to raise the profile of the work of flight nurses throughout NZ; that the public and those within the wider sector become aware of what is currently a hidden workforce.

This remit was duly voted on and accepted at the 2017 COASTN AGM.

It was proposed that a designated COASTN sub-committee be formed with its dedicated goal being that of working towards the above outcomes.

The sub-committee was formed with flight nursing representatives from various flight services throughout NZ.

Terms of reference were developed and work commenced.

The first component of our work has focused on the development of national standards for education, training and ongoing competency requirements for flight nurses. This document includes Entry Criteria into Flight Nursing, Introductory Training and Orientation, Passport Maintenance and Re-

certification process, Employer Responsibilities, Flight Nurse Responsibilities and the Emergency Procedure Certification document. It is envisaged that on completing the introductory training and orientation a Flight Nurse Passport will be issued to the individual flight nurse. A national database, held and completed at local service level will feed into a national database.

The above documents and concepts were presented at the 2018 COASTN AGM.

These national draft documents have now gone out to flight nurses throughout NZ for consultation and can also be viewed on the COASTN website. Feedback is due back in with the sub-committee, via myself (dianef@adhb.govt.nz) by December 14th 2018. It is hoped to have finalized versions of these documents and the database 'rolled out' by late March 2019.

National templates will also be developed for

- Physical fitness
- Health screening
- National transport log

Yet to be addressed is the credentialing pathway, national definition of a flight nurse and targeted activity to raise our profile within the health sector and public eye.

This work is aimed at raising our professionalism and our professional credibility at national level. It will provide solid evidence of what it is we do and are achieving as flight nurses.

It offers a platform for our accountability, and evidence that we as flight nurses are becoming proactive about risk mitigation, meeting legislative requirements and nationally identified criteria. That we are serious about safety, training and education and have our patients welfare at the core of what we do.

I draw your attention to becoming more familiar with the content of the recently updated NZ Aeromedical and Air Rescue Standard Version 3.0: 2018, and the hopefully soon to be released updated version of NZS8156. These national documents impact on us as flight nurses.

The work will continue, and along the way we will keep you updated. As drafts of national documents and templates are developed we will ensure their distribution to you all for consultation and feedback.

Keep a watch on your emails and on the COASTN website.

In the meantime, Merry Christmas and a Happy New Year to you all. Enjoy time with your families and friends and stay safe.

On behalf of the COASTN sub-committee
Di Fuller
Chairperson

NORTHLAND

Regional Round Up

REGIONAL REPORT – NORTHLAND ICU FLIGHT TEAM, by FN Janet Barker

The Northland team have been pretty quiet of late with just a few of the usual late winter transfers of COPD / pneumonia / septic adults and the occasional bronchiolitic or asthmatic child. Having said that our newest flight nurse – Emily Wang – has had more than her fair share of transfers with a few very unstable and critically ill patients. She has probably done most of the flights over the last month or so and has even been able to practice her CPR en route to Auckland! That scenario is always a challenge – luckily she was out of the aircraft when the patient arrested and they were able to get into their destination department really quickly. Thank goodness we have finally got our swipe cards sorted out for the Auckland Hospital campus. It has taken a while to get them organised for all the Flight Nurses and not before a couple of us had stories to tell of being trapped on the air bridge with a ventilated patient and no way of getting through into the main hospital corridor.

The weather is starting to perk up a bit now too – Spring has certainly sprung and summer is just around the corner. Time to ensure we have our water bottles with us when we head up into the skies as it gets pretty warm up here in Northland. I had a stunning mid-evening flight recently heading south from Kaitia to return to base at Whangarei. We were up around 3000 feet and going down the middle of the country just as the sun was setting over the west coast and the full moon was rising in the east. It was just stunning and even our very sick patient was able to appreciate the amazing view.

Our new Sikorsky S76C++ helicopters are now in the hands of the engineers to get them ready for us to use – hopefully by the end of the year. The mass of wiring and piping that runs behind the roof, floor and wall panels is just mind-boggling – an amazing sight to see for sure, but I will be pleased once it is all hidden out of sight with nice clean coverings! Our full-size, real-life Helicopter Training Simulator is also officially out of action for a few months whilst it is upgraded with the various aircraft systems and avionics that will match up with the updated aircraft. The pilots use the Simulator frequently, both for training and to meet regulatory requirements, so they will be happy to have it up and running again as soon as possible. As for the medical crews – we are still hoping to have the medical cabin finally fully configured so we can run realistic clinical scenarios with input from the pilots.

As we move inexorably towards the festive season, we'd like to wish all our friends and colleagues in the various Flight Services around the country safe travels plus a happy, safe and fun holiday period.

SOUTHERN

Regional Round Up

The South Island has finally had their air ambulance contracts confirmed - with Garden City Helicopters (GCH) & Helicopters Otago working together to form HEMS-NZ, which is contracted to provide services across the entire Island. This means that as of November 1st there will be helicopters based in Greymouth, Nelson, Christchurch (x2), Dunedin (x3) & Queenstown available 24/7 & fully dedicated to aeromedical & rescue work. Southern Lakes helicopters from Te Anau has been sub-contracted to provide specialist rescue services in the mountainous terrain around Fiordland along with some of the long-range offshore missions that are undertaken into the Southern ocean. As there was only around 2 weeks notice given by MOH it meant a bit of a scramble to find appropriate staff (both technical & clinical) to staff the Queenstown base. It's been a pretty tough 6 months for most of the providers - & for Heli Otago it has been no different, so Graeme & Ros Gale decided to throw a party for staff, clients & supporters to thank everyone for their support. They unveiled our latest machine - an EC145 helicopter fully equipped with all the bells & whistles, but requiring the purchase of some seat covers to protect the lovely white leather seats !

Cruise ship season has begun - with Dunedin expecting ~ 121 boats into our local port. This usually encompasses some extra heli missions into Milford Sound - as this is the first time boats come near the coast having voyaged across the Tasman. So - 24hrs prior to the first ship we received a phone call asking us to arrange a pick-up from the ship in Milford. Logistically this is a bit of a mission - often requiring 2 pilots & with an extra fuel load there is only room for 1 clinician, so papers/scissors/rock was won by the senior registrar leaving us flight nurses slightly green with envy. However - payback came in the form of inclement weather meaning the heli had to land in Te Anau requiring a 90min road trip into Milford to meet up with the patient. The heli was able to sneak in & pick everyone up, but it was a rather rough journey home!

For us planning for the summer influx into Central Otago along with a recent spate of road traumas (secondary to tourist unfamiliarity with NZ roads) , coupled with the fact the Dunedin ICU shifts into its new unit soon has kept us all busy. Maximal occupancy of both Dunedin & Christchurch ICUs at times has had transport services talking on a regular basis to plan where bed capacity was available for taking acute admissions, how we were going to move people & who was going to undertake the work. For Dunedin running their retrieval service off the floor means if we are super-busy having the ability to facilitate retrievals & transfers can often be put at risk - so many thanks to the flight team for all the extra on-call availability they have provided.

For those lucky enough to have time off over the summer don't forget the South Island is a fantastic place to come & chill out!

Dunedin ICU Flight team.

The Maniototo Plain in November



SERVICE ROUND UP

NZAAS AUCKLAND



Hullo from NZAAS in Auckland. As with the rest of the country we have been experiencing some inclement weather and we are all looking forward to the summer season and making the most of the warmer, sunny days that are becoming more frequent as spring progresses and we move into summer. Despite the improvement in the weather we are still getting plenty of adult ECMO transports, there no longer seems to be a 'typical' ECMO season and we have moved a record number of adult ECMO patients this year. We always appreciate the warm welcome and assistance that we get from the local teams when we arrive at the referral facility when we seem to take over the department for a short while with a team of four and huge amount of equipment!

NZAAS now has a Mustang Jet aircraft and flight nurse based in Wellington, I will leave the team to introduce themselves on the following page.

Our flight nurses have enjoyed attending several conferences over the past year including ANZICS in Auckland, ASA in Hobart and we had quite a contingent at the Hamilton Symposium earlier this month. Conferences are always a great opportunity to not only learn but to make collegial acquaintance, network and see what's new on the market by perusing the trade displays.

We have welcomed a number of new pilots and first officers into the team who I am sure some of you will have already met—Stuart and Tony are captains and Sean is first officer. Josh has also started as crewman for Starship while Aleks who many of you will know as a crewman, has moved into a first officer role. We also have Katrina, Jess and Rowan working in Mission Coordination. As the service is expanding we will be advertising for an Auckland based flight nurse to join our team in the next month or so.

Wishing you all a safe and happy summer.

Angela and the NZAAS team.



NZAAS/CVICU ECMO team arriving at Dunedin Airport recently.



Photos Courtesy of Emma Pountney, FN NZAAS.

SERVICE ROUND UP

NZAAS Wellington

New Zealand Air Ambulance Service launch Wellington based flight nurse / midwife jet service

The new air ambulance service offers a Mustang jet and flight nurse/midwife capability available to all DHB's, ACC and Ministry of Health.

The jet is available for use by hospital flight teams and is the ultimate aircraft for time critical retrievals.

The Mustang is 35% faster than turbo props, can fly safely above weather at 21,000 feet while maintain a sea level cabin and is comparable in cost to turbo prop aircraft.

**The Wellington Service is available through the
National Call Centre on 0800 111 400**



Meet our Flight Nurse

Catherine is an experienced Flight Nurse/Midwife based at our NZAAS Wellington base. She has been working in the aeromedical industry for a number of years and holds current annual practicing certificates for nursing and midwifery. She is also a certified flight nurse. (RFDS Australia, 2016).

Catherine is currently studying towards her Masters in Aeromedical Transport.





We (Sabrina, Teresa & Laura) joined the PICU transport team in March 2018 and although it took a few months to complete our orientation, we quickly learned what it was like to be a transport nurse in the middle of winter! (Teresa missing from photos).



Starship

Initially, when first asked to join the transport team, you have an overwhelming feeling of apprehension and nervousness and your first response is "I don't think I'm ready!" To which your Transport Nurse Specialist and fellow transport nurse colleagues say, "that means you are definitely ready!" Suddenly, you become excited and you feel quite chuffed that you have been asked to join the team because this means that you must now be recognised as a nurse who has the clinical expertise, a vast knowledge base and critical thinking skills to care for acutely ill children in this unique and challenging environment.

Statistics

Between June 2018 and September 2018, the Starship PICU transport team had a total of 106 transports, equating to 700 transport hours! In June there was a total of 211 transport hours, reaching a new record! The previous high was 207 hours in 2013. Below are some of the statistics:

| | | |
|-----------|---------------|-----------|
| June | 32 transports | 211 hours |
| July | 28 transports | 188 hours |
| August | 18 transports | 107 hours |
| September | 28 transports | 194 hours |



Through the different retrievals, we continue to develop our skills in areas such as resourcefulness, flexibility, communication and assessment skills; critical thinking and decision making. Becoming a transport nurse is exciting, terrifying, nerve-racking, challenging, confidence boosting, exhausting and knowledge and clinical skill building all at once. The support we have received not only from our team within Starship PICU, but also from the amazing teams and support services throughout the country, has been incredible. THANK YOU!

SERVICE ROUND-UP

Christchurch

Hi from Christchurch

Occasionally the CHCH air retrieval service will aero medically transport a patient with decompression illness. As part of a recent flight nurse study day we went for a visit to the Christchurch hyperbaric medicine Unit, run by Clinical Director Dr Greg van der Hulst. The Christchurch Hyperbaric Medicine Unit provides a 24 hour acute service for NZ south of Taupo. Greg took a few nurses “for a dive” and we were able to observe first-hand the effects of a Boyle’s gas volume law.

Decompression illness (DCI)

Results from a reduction in the ambient pressure surrounding a body. This may happen with a diver surfaces too quickly. DCI encompasses two diseases, decompression sickness and arterial gas embolism.

How does Hyperbaric Oxygen Therapy work?

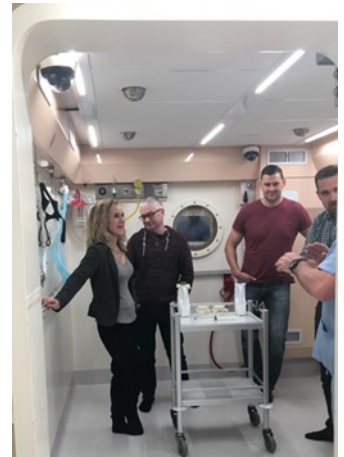
Hyperbaric oxygen therapy is the medical use of 100% oxygen at increased pressure. It works in a variety of ways in the body. This increased pressure provides more oxygen to the body than is possible under normal conditions. Most treatments are between two and three atmospheres of pressure, and the pressure change closely approximates scuba diving.

PaO_2 can increase from less than 200 mmHg at 1 atmospheres absolute (ATA) room air to more than 2,000 mmHg at 3 ATA. This also translates into significant increases in tissue oxygen partial pressure.

Boyle’s Law states that the volume of a gas at a fixed temperature is inversely proportional to the ambient pressure. Lowering the ambient pressure causes increased gas volume; the converse is also true. These effects of pressure are experienced within physiologic and pathologic air cavities, including the middle ear, paranasal sinuses, pathologic dental spaces, and emphy-

First Aid for decompression illness

- ABC
- Patient must be supine and be on bedrest
- High flow oxygen 15 Lpm
- Keep patient below 300 meter altitude or cabin pressure
- Watch carefully. They can get worse!



SERVICE ROUND UP

Waikato

WAIKATO ICU ROUND UP



Hello from the Waikato ICU transport team

The winter is over and summer around the corner, there has been some wild weather around the country but here in the Waikato we seem to have quite stable weather patterns.

On the 2nd of November we hosted the COASTN symposium. It was a beautiful sunny day at the lake in Hamilton and was very well supported by the regions from Northland to Dunedin. We really appreciate the effort people went to attend this symposium.

Choosing speakers is difficult and trying to make the day interesting is difficult as you don't know what each speaker is going to offer till it happens. Fortunately we had a nice variety of quality speakers.

Feedback has been varied, some wanted more case studies. As organisers we decided that we would try and make it as varied as possible and I think that we achieved that.

Dr Graham Denyer gave an interesting talk on the challenges and logistics of retrieving patients from Antarctica.

Brian Goodhall did a case study on a difficult retrieval where there were multiple factors (term lady in labour with cardiac problems)

Andrew Inder gave an update on Transport Services and the changes that are going to happen, although I felt at the end of it that we were none the wiser. This was followed up by Dr Tony Smith who could not give us more details as he probably does not know much more than we do on the subject.

Aria and Jill from Waikato NICU gave short presentations. Jill presented a very moving case study on the emotional aspects of decisions one makes when transferring patients with poor outcomes. We have all had this type of transport where we take a patient away from their families only to have them die in the company of strangers.

Aria gave a very interesting futuristic presentation on transporting a foetus in an artificial womb bag. Don't write that one off as many innovations have become reality through this type of thinking.

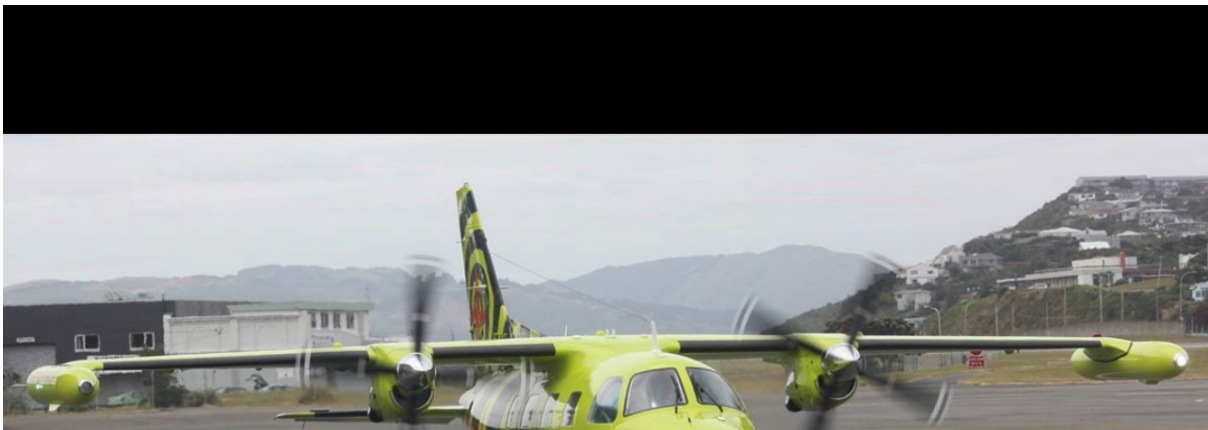
It was good to have one of our fixed wing pilots speak. Massey Lynch gave us his talk on transports and the challenges they face as pilots that affect us. The pictures of lightning strikes were interesting as our plane was hit earlier this year and the infusion pump with Noradrenaline stopped working. Dr Annette Forrest gave a good case study on transporting a cardiac patient and the challenges that the flight team faces in the transport.

The venue was lovely and the food was very nice too, it must have been because there was not much left.

From the Waikato transport team we wish you all safe travels over the festive season.

John Jenje

ICU Flight Nurse



Featured in the Whanganui Chronicle 08/11/2018

Whanganui Flight Team—Angels in Sky Ambulance

News

Monday, October 8, 2018

Angels in sky ambulance look after us, says patient

Burns victim never expected to need service – but he did and it opened his eyes



The aftermath of the fire at Jim O'Neill's property.

Sue Dudman

‘Where do you think you will be in 24 hours from now?’ That’s the question Whanganui’s Jim O’Neill is asking people to think about after he had first-hand experience of a community organisation that largely flies under the radar.

At 3pm on Saturday, August 25, O’Neill was at his Tawhero home.

“I was finished bumming around, I sat down and was thinking about having a beer, watching the [All Blacks] test ... and 24 hours later I was in Hutt Hospital’s burns unit – no beer, no test.

“I had a beer 12 days later.”

O’Neill received burns when his garage and workshop caught fire. He was taken to Whanganui Hospital and then transferred to Hutt Hospital by Whanganui’s air ambulance.

He wants the community to understand how important the air ambulance service is for Whanganui.

“When they came to get me, the nurse told me what was happening and what they were going to do. We went by ambulance from the hospital to Whanganui airport.

“The pilot and male nurse on that plane were absolutely brilliant. I couldn’t fault them.

“We were picked up by ambulance from Wellington Airport and delivered to Hutt Hospital. That nurse stayed with me until I was admitted ... they were fantastic.”



Jim O’Neill says experiencing Whanganui’s air ambulance service as a patient left a huge impression. Photo / Stuart Munro

The Wanganui Air Ambulance Trust provided the care and Air Wanganui the planes, O’Neill said.

“They have been hiding under a cloud for way too long and people need to know what they do. There are a lot of people in this town who have got a lot to thank them for. In recent times I know three people who have been on that plane to Wellington and all have come home.

“I can’t praise them enough. You don’t know from one hour to the next

when you are going to require it.”

O’Neill spent 11 days in hospital and has been told it will be another 18 months before he is fully recovered.

“But I look at the bright side. There’s always someone worse off than you.”

O’Neill is back on light duties at GOME (Grumpy Old Men Enterprises Trust), which recently gave \$1000 to the Wanganui Air Ambulance Trust. The Air Ambulance Trust is one of a number of community organisa-

tions that receive an annual donation from GOME, which has raised thousands of dollars by breaking down appliances and selling the scrap metal.

“It was quite different seeing it from both sides, donating to them and actually receiving their services,” O’Neill said.

“The service they provide is absolutely first-class. They deserve everything you can give them. Amazing service, amazing people.”



The AUT logo is in the top right corner, consisting of the letters 'AUT' in a white, bold, sans-serif font on a black rectangular background.The background of the top section is a photograph of a sunset or sunrise over a mountain range, with clouds illuminated in shades of orange, yellow, and blue. A purple and teal diagonal stripe separates the logos from the main title area.

COASTN

Aeromedical Retrieval Course 2019

SELECTION CRITERIA for NZ FLIGHT NURSES

Some years the number of NZ flight nurse applicants exceeds the number of positions available on the COASTN Aeromedical Retrieval Course.

Below are the selection criteria used as a guide by the COASTN committee when selecting applicants; especially so when applicant numbers exceed positions available.

COMPULSORY CRITERIA

1. Currently practicing NZRN/NZRCompN/NZRM
2. Currently working in the NZ aeromedical industry as a flight nurse/flight midwife

STRONGLY RECOMMENDED

1. A minimum of 6 months flying experience

PRIORITY CONSIDERATION (in no order)

1. DHB flight nurses
2. Flight nurses who have previously applied for a course and not been selected
3. NZNO/COASTN members
4. A fully completed, typed application form accompanied by ALL required documents, provided on time.



COASTN AEROMEDICAL RETRIEVAL COURSE 2019



April 8th – 12th (Inclusive)

Venue: Auckland – AUT Manukau campus

16 TOTAL POSITIONS AVAILABLE

NZ FLIGHT NURSES/PARAMEDICS: (14 positions) / AUSTRALIAN FLIGHT NURSES (2 positions)

All applicants are required to be a practicing registered nurse/midwife and currently working in the aeromedical environment. A minimum 6 months flying experience is strongly recommended.

For all health professional groups it is necessary to have sound pre-existing knowledge of normal physiology of the human body.

Application forms are available online at:

https://www.nzno.org.nz/groups/colleges_sections/colleges/college_of_air_surface_transport_nurses/resources-Education

COURSE CONTENT WILL INCLUDE (remains subject to change)

- Altered physiology at altitude
- Legal/professional issues in the aeromedical environment
- Simulation training
- Air Ambulance Standards
- HUET (Helicopter Underwater Escape Training) including other water based survival skills
- Flight stressors
- Land based survival training
- Crew Resource Management
- Pilots Perspective

Flight Nurses & Paramedics: NZ \$1,500.00 incl. GST

Payment needs to be made by 25th February 2019. A late payment fee of \$100.00 will be strictly enforced.

A 10% cancellation fee will be enforced if you withdraw your application within 3 weeks of the course commencing i.e. any time after 11th March 2019

TIME LINE:

- Applications close 21st December 2018 (please do not send payment with application)
- Applications will be reviewed by the COASTN Committee week commencing 21st January 2019. Notifications of acceptance/or not will occur in the same week
- The week commencing 28th January 2019, comprehensive course information will be sent out including the bank account number to make payment.
- On notification of acceptance to the course, fees need to be paid by 25th February 2019. A late fee of \$100.00 will be strictly enforced.
- Pre-reading will be e-mailed out the week commencing 4th March 2019
- Withdrawals from the course after 11th March 2019 will incur a \$150.00 fee.



COASTN

AUT

AEROMEDICAL RETRIEVAL COURSE 2019

April 8th – 12th (inclusive)

(Please read attached documents: Selection Criteria & To All Applicants)

COURSE APPLICATION FORM – NZ FLIGHT NURSES (12 -16 positions)

All applications to be TYPED

Surname: _____ First Name: _____

Address: _____

Home ph: _____ Mobile: _____

Email: _____

Specific Area of work: _____ DHB: _____

Cost: Flat rate of \$NZ 1500.00 incl. GST

1. Payments are to be made no later than 25th February 2019 or a late fee of \$100.00 will be applied
2. A 10% cancellation fee will be applied if you withdraw your application after 11th March 2019

Are you a COASTN member: ☐ Yes ☐ No

Please indicate source of funding

☐ Self Funded ☐ Education Fund ☐ DHB Funded ☐ Combination

Documents to be included with application form:

1. Current Nursing Practice Certificate
2. Letter of support from immediate manager (to incl. how long you have been flight nursing)
3. Transport log of last 12 months indicating types of missions (remove any patient identifiers)
4. Statement on why you believe this course will be of benefit to you and to your work place/transport team
5. Evidence of any post graduate studies you have completed (N.B course assignment is to be written at level 8)

Send complete application form and all requested documents to:
tazfynn@gmail.com

APPLICATION IN BY
21st December 2018
(Do not include payment at this stage)



COASTN

AUT

AEROMEDICAL RETRIEVAL COURSE 2019

April 8th – 12th (inclusive)

(Please read attached documents: Selection Criteria & To All Applicants)

COURSE APPLICATION FORM – PARAMEDICS (2 positions)

All applications to be TYPED

Surname: _____ First Name: _____

Address: _____

Home ph: _____ Mobile: _____

Email: _____

Region of Work: _____

Cost: Flat rate of \$NZ 1500.00 incl. GST

1. Payments are to be made no later than 25th February 2019 or a late fee of \$100.00 will be applied
2. A 10% cancellation fee will be applied if you withdraw your application after 11th March 2019

Please indicate source of funding

☐ Self Funded ☐ Education Fund ☐ DHB Funded ☐ Combination

Documents to be included with application form:

1. C.V. with the application form (to include indication of any post graduate studies undertaken)
(NB: flight course assignment is to be written at level 8)
2. Evidence of currently working as a paramedic with an aeromedical service *or*
3. Evidence of imminently moving into a paramedic position with an aeromedical service

Send complete application form and all requested documents to: tazfynn@gmail.com

APPLICATION IN BY
21st December 2018
(Do not include payment at this stage)



COASTN AEROMEDICAL RETRIEVAL COURSE 2019

**To All Applicants
NZ Flight Nurses & Paramedics**

**Please note the following for the
COASTN Aeromedical Retrieval Course**

For any student who has received a DHB funding or external funding source, regardless of passing the course or not a letter will be sent to each student's nursing manager or service manager outlining the following:

- Number of days the course was attended (out of 5 days)
- Exam mark
- Assignment mark
- Overall grade for the course
- Level HUET was achieved to

For each student who **passes** the course, on the back of each course certificate will be:

- Number of days the course was attended (out of 5 days)
- Exam mark
- Assignment mark
- Overall grade for the course
- Level HUET was achieved to

DISTANCELEARNING

UNIVERSITY OF OTAGO, WELLINGTON

Postgraduate Certificate in Health Sciences (Aeromedical Retrieval and Transport)



The goal of the Postgraduate Certificate endorsed in Aeromedical Retrieval and Transport (AeroRT) is for graduates to develop an understanding of the aviation environment and its physiological implications; gain knowledge of aeromedical and aviation procedures and be able to utilise current best practice to safely plan and complete aeromedical retrievals and transfers.

In 2013, the PG Cert HealSc (AeroRT) underwent a comprehensive review and the curriculum was re-written after wide consultation. The result is an exciting new programme that is tailored to specifically meet the needs of nurses and paramedics working in the specialist area of aeromedical retrieval.

Graduates of AVME719 and AVME720 will have met the educational requirements set out in the NZ Air Ambulance/Air Search and Rescue Standard, the NZ Standard for Ambulance and Paramedical Services (NZS8156:2008), the educational requirements of the NZFNA and the educational standards for the Aeromedical Society of Australasia (ASA).

Graduates will also have the opportunity to continue studies towards a Post Graduate Diploma or Masters in Health Science endorsed in Aeromedical Retrieval and Transport (AeroRT).

AVME719 Operational Aspects of Aeromedical Retrieval

The focus of AVME719 is on the aeromedical environment and the operational aspects that patients and clinical personnel are exposed to.

- General organisation and structure of retrieval systems
- Aeromedical environment and physiological implications
- Aeromedical aircraft and aviation processes
- Safety and survival

AVME720 Clinical Aspects of Aeromedical Retrieval

The focus of AVME720 is to expand on the knowledge gained in AVME719 and incorporate this into clinical practice.

- Crew Resource Management, human factors and the impact on safe aeromedical practice and patient care
- Fatigue and systems for identification and management
- Clinical considerations and constraints
- Specialist clinical retrievals
- Integration of theory into independent clinical practice

For further details please contact:

oamu@otago.ac.nz or check out the website: otago.ac.nz/aviation_medicine



WELLINGTON

UPCOMING CONFERENCES

2019



The poster features a cartoon illustration of a nurse in a white uniform running on a rocket labeled 'YOUR ICU' and 'PAST FORWARD!'. The nurse is holding a stethoscope and a syringe. A small orange cat is perched on the rocket. In the background, a doctor in a blue uniform is running. The ANZICS logo and the NZCCN logo are in the top right corner. The text '2019 ANZICS NEW ZEALAND REGIONAL ASM' is prominently displayed in the center. Below the illustration, the dates '3 – 5 April 2019' and the location 'Spencer On Byron Hotel, Takapuna, Auckland, New Zealand' are listed, along with the website 'www.anzics2019.nz'.

ANZICS NZCCN

**2019
ANZICS
NEW ZEALAND
REGIONAL ASM**

3 – 5 April 2019
Spencer On Byron Hotel, Takapuna, Auckland, New Zealand
www.anzics2019.nz



The image shows a night view of the Perth skyline with various skyscrapers illuminated. The text 'PERTH WESTERN AUSTRALIA' is overlaid on the image. Below it, the text 'ASA+FNA 31st CONFERENCE' and '16-18 OCTOBER 2019' are displayed. At the bottom, the website 'www.aeromedconference.com' is provided for more information.

PERTH
WESTERN AUSTRALIA

ASA+FNA 31st CONFERENCE
16-18 OCTOBER 2019

For more information: **www.aeromedconference.com**

Remember you may be eligible to apply for a grant towards study or conferences through COASTN. Apply online at: https://www.nzno.org.nz/groups/colleges_sections/colleges/college_of_air_surface_transport_nurses/scholarship



QUICK QUIZ

Hypoxia Revision

Hypoxia can be caused by several factors, including an insufficient supply of oxygen, inadequate transportation of oxygen, or the inability of the body tissues to use oxygen.

1: What are the 4 types of Hypoxia?

2: List 6 signs of hypoxia

3: What are the treatment options for Hypoxia in flight?

4: What does TUC stand for and what does it mean for you as medical crew?

5: What would be the TUC be if you are flying at an altitude 25000ft and experience a depressurisation?

Spatial Disorientation in flight specifically refers to the lack of orientation regarding the position, attitude, or movement of the airplane in space. The body uses three integrated systems that work together to ascertain orientation and movement in space.

6: What are these three systems?

QUIZ ANSWERS

1: • Hypoxic hypoxia - Insufficient oxygen available to the body as whole. In the aviation setting hypoxic hypoxia is often a result of the lower atmospheric pressure at altitude.

- Hypemic hypoxia – the blood is not able to take up and transport oxygen molecules. Can with anaemia, haemorrhage and CO poisoning,
- Stagnant hypoxia – can also result from shock, the heart failing to pump blood effectively, or a constricted artery. During flight, stagnant hypoxia can occur with excessive acceleration of gravity. Cold temperatures can also reduce circulation and decrease the blood supplied to extremities.
- Histotoxic hypoxia - In this case, enough oxygen is being transported to the cells that need it but they are unable to make use of it. This can be caused by alcohol and other drugs, such as narcotics and poisons.

2: Cyanosis (blue fingernails and lips)

Headache

Decreased response to stimuli and increased reaction time

Impaired judgment

Euphoria

Visual impairment

Drowsiness

Lightheaded or dizzy sensation

Tingling in fingers and toes

Numbness

As hypoxia worsens, the field of vision begins to narrow.

3: Treatment for hypoxia includes flying at lower altitudes and/ or using supplemental oxygen.

4: Time of useful consciousness is also known as Effective Performance Time (EPC). It is defined as the amount of time an individual is capable to perform flying duties efficiently in an environment of inadequate oxygen supply. This can also apply to medical crew performing their duties in the aeromedical environment. It is interesting to note there is no hallmark sequence of symptoms in hypoxia, individuals will display unique behaviours and therefore it is also important to recognise all of the symptoms. Loss of oxygen in an aircraft may occur insidiously. TUC is not the time to total loss of consciousness.

5: 3-5 minutes

6: Vestibular system – organs in the inner ear that sense position by the way we are balanced

Somatosensory system – nerves in the skin, muscles, and joints that, along with hearing, sense position based on gravity, feeling, and sound.

Visual system – eyes, which sense position based on what is seen.

References:

https://www.faa.gov/regulations_policies/handbooks_manuals/aviation

https://en.wikipedia.org/wiki/Time_of_useful_consciousness

https://www.skybrary.aero/index.php/Time_of_Useful_Consciousness

RECIPE

Flourless Black Bean Brownie

F l o u r l e s s B l a c k B e a n B r o w n i e s

350g Cooked Black Beans

120ml Agave Nectar

60g Coconut Oil

1 tsp Vanilla Extract

Zest of one orange

¼ Tsp salt

½ tsp Baking Powder

75g Sugar

45g Unsweetened Cocoa powder

3 large eggs, beaten

85g Dark Chocolate Chips

1 Preheat Oven to 180 degrees.

Lightly oil a 28x28cm metal baking tin.

In a food processor combine the black beans, agave, coconut oil, vanilla extract and orange zest until smooth.

2 In a large mixing bowl, combine the salt, baking powder, sugar and cocoa powder.

Incorporate the black bean mixture and eggs

3 Gently fold in the chocolate chips, being careful not to overwork the mixture

4 Pour the mixture into the baking tin. Bake for 30-35minutes, until; the brownies pull away from the edge and a skewer inserted into the middle comes out clean.

Leave to cool for 15-20mins before cutting and serving.

Thanks to Nicola Mercer, PICU FN.

RECIPE

AMAZING Chocolate Brownie

Amazing adaptable brownie recipe (plagiarised/modified from a Watties' Food in a Minute recipe):

Line a rectangular baking tin with baking paper, & pre-heat the oven to 170°C (for fan bake ovens)

Melt 150g of butter & $\frac{3}{4}$ cup of cocoa together over a low heat, then set aside to cool.

Beat 3 eggs, 1 $\frac{1}{2}$ cup of caster sugar & some vanilla essence/vanilla bean paste together until light & fluffy. Then beat in the butter/cocoa mix.

Sift in $\frac{1}{2}$ cup self-raising flour & fold in. You can substitute regular flour for gluten-free if you wish -it doesn't affect the texture of the brownie. If no self-raising flour just add 1 teaspoon of Baking powder to your $\frac{1}{2}$ cup of regular/ gluten-free flour.

At this stage you can add in frozen berries (raspberries & broken up boysenberries are great), chocolate chips/ drops/chunks (milk/dark/white), or make a caramel & swirl it through.

Pour/tip into baking tin, smooth out & bake for ~ 30 mins (timing can be adjusted: to make it slightly gooier/fudgier as desired just cook for slightly less time).

Cool slightly, serve with yoghurt, cream or your favourite ice-cream. Enjoy J

The Watties recipe used a can of boysenberries - drain them, reserve the juice & stir berries into brownie mix. Reduce juice in a pot over a low heat to make a berry coulis to serve with the brownie.

To make a caramel melt together 100g butter, 3 tablespoons of golden syrup & 1 can of condensed milk over a low heat. Put the brownie mix into the tin, pour the caramel over the top & use a spoon/knife/skewer to drag the caramel through the brownie mix. Alternatively you can buy a can of Highlander Caramel, drop blobs into the brownie mix once in the tin & swirl through the same way.

Ingredient list:

150g butter

$\frac{3}{4}$ cup cocoa powder

3 eggs

1 $\frac{1}{2}$ cups caster sugar

Vanilla essence/bean paste

$\frac{1}{2}$ cup self raising flour/gluten free flour (or add 1tsp baking powder if no self raising flour)

Extra goodie: berries, chocolate, caramel.....

Thanks to Wattie's and Toni Johnston

GARDENING TIPS

December—January

Flowers and Shrubs

Sow Cosmos, Cyclamen, Marigolds, Zinnia, Ageratum.

Plant seedlings such as Chrysanthemum, Dianthus, Gypsophila, Salvia. Roses and perennials. Remember to water them well



Lift Spring flowering bulbs once the leaves have died down completely and store them in a cool, dry place.

Add a layer of mulch around the base of garden shrubs to conserve moisture and protect roots from the hot sun—especially rhododendrons, azaleas and camelias.

Remove dead flowers from roses to encourage new blooms

Feed roses with Rose fertiliser and spray with supershield to control pests and diseases.

Water the garden on early evening or early mornings, especially plants in containers which will dry out quickly in dry hot weather.

Kitchen Garden

This is a month of rapid growth so ensure that you water, weed and feed well.

Sow the following seeds directly into soil: beetroot, beans, parsnip, swedes, radish, spinach, lettuce. Sow seeds every 2 weeks to ensure you have a continuous harvest.

Plant seedlings of lettuce, broccoli, cabbage, cauliflower, tomato, sweetcorn, eggplant, melon, pumpkin, courgette, capsicum, cucumber and gherkin.

Protect plants from caterpillars and whitefly.

Feed tomatoes at least once a week, remove laterals and firmly stake them. Water regularly.



Protect fruit trees from fungus and leaf curl.

Apply a layer of mulch around vegetable plants to conserve soil moisture.

Lawns

Raise the cutting blade up a level for the summer season. If cut too short the lawns will dry out more quickly. Water in dry weather and apply lawn fertiliser to keep lawns fresh and green.

Tips from www.palmers.co.nz



New Zealand Flight Services Contact List

| | | |
|-----------------------|--------------------------------------|----------------------------|
| Northland | Sarah.Pickery@northlanddhb.org.nz | |
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| Auckland NZAAS | assistance@nzaas.co.nz | Ph: 0800 111 400 |
| Starship | dianef@adhb.govt.nz | Ph: 021 1951 720 |
| Waikato ICU | Christine.craig@waikatodhb.health.nz | |
| Tauranga | Dianna.Keys@bopdhb.govt.nz | |
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