



New Zealand College of Air, Surface & Transport Nurses Magazine

College of the New Zealand Nurses Organisation

COASTN Committee 2017



Rear Left to right: Annie Bradley-Ingle, Joanna Knight, Kelvin Still,

Front Left to Right: Angela Coward, Toni Johnston, Gill Robertson, Rachel Pringle, Anju Sethi

<p>Toni Johnston (Chairperson) antonia.johnston@southerndhb.govt.nz Dunedin</p>	<p>Gillian Robertson (Treasurer & Flight Course Liaison) andgillrob@gmail.com Tauranga</p>	<p>Anju Sethi (Secretary) anju2372l@yahoo.co.nz Waikato</p>
<p>Joanna Knight (committee member) joannaknight@xtra.co.nz Whanganui</p>	<p>Angela Coward (committee member) angela@nzaas.co.nz Auckland</p>	<p>Kelvin Still (Editor, Up and Away, Website) kelvin.still@gmail.com Hawkes Bay</p>
<p>Rachel Pringle (committee member) rachelpringle71@gmail.com Christchurch</p>	<p>Lisa Black (committee member) lisa.black@wdhb.org.nz Wanganui</p>	<p>Annie Bradley-Ingle NZNO Professional Nurse Adviser annetteb@nzno.org.nz</p>



Welcome to the Oct 2017 Edition

Hi all,

Sadly this will be my last magazine as editor. I have really enjoyed my time on the NZFNA/COASTN committee. I have seen a lot happen over my 4 years. The completion of the college application to NZNO being the crowning achievement of all involved.

Although this was the last major piece of work the committee has completed it doesn't mean that we have been idle. There is lots of work going on behind the scenes with a view to trying to bring pay parity to Flight Nurses nationally. Along with the current MOH drive to rationalise the Transport/Flight services around NZ. The committee has lots of work ahead.

Flight Nursing has come a long way since I started in 2000. My hope is that even though Flight Nurses are a relatively small specialised group we can and will continue to grow and prosper. This can only be through education of ourselves, the wider nursing community and the public about our passion. I cannot emphasise enough that we should all be taking advantage of the benefits of the educational opportunities offered in New Zealand. To improve ourselves but also to improve Flight Nursing as a whole.

My only hope is that whomever fills my role as Editor won't have such a hard time trying to put your magazine together. Every edition has the same problem with very little support from our membership in the way of articles, pictures and other information that can be made available to our membership though this forum. Please consider publishing your experiences, articles and pictures.

Congratulations to the Christchurch Team who are hosting this year's symposium with what looks like an excellent programme.

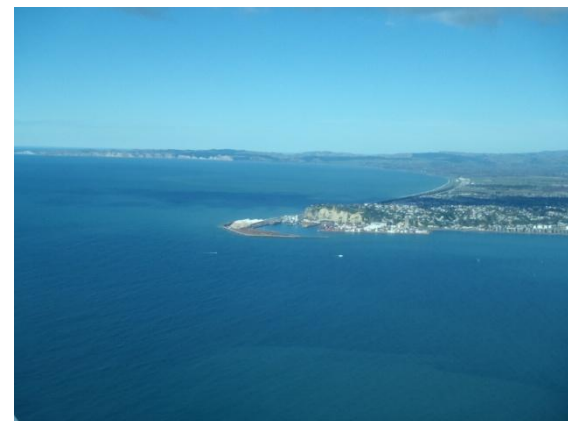
This is my chance to thank the HBDHB Flight Team (past and present) who have supported me during my years on the committee. Thanks very much.

I want to wish all of the committee those serving and yet to come on, all the best for the future. I know that they will continue to do their best for COASTN members.

Happy and safe flying.

Kelvin

(kelvin.still@gmail.com)



Greetings from the Chair,

Hello from the sunny South. As this edition of "Up, up & away" goes to e-print thoughts go to the hard working COASTN cohort in Christchurch preparing to host this year's symposium & AGM on November 13th. I hope members have embraced the chance to attend a well prepared & diverse symposium, and have taken advantage of the opportunity to stay in Christchurch & enjoy the festivities that Cup Week has to offer. Planning also progresses for next year's conference hosted by the Waikato cohort. The committee is also preparing for the AGM, where 2 of the long-serving committee members - treasurer Gill Robertson (Tauranga) & magazine editor Kelvin Still (Hawkes Bay) - step down. Remaining committee members will really miss their knowledge and wisdom, thank them for their hard work & wish them well with the extra time they may now have.

Work continues behind the scenes nationally on the air ambulance co-design project - and as indicated in my recent letter to members the clarification of current nursing involvement in transport services along with discussions of the impact some of the proposed changes may have on service workloads & crew composition.

Those involved in the clinical advisory group (CAG) have acknowledged the huge professional service nurses currently deliver in this sector. Ambulance standards NZS8153 have long provided as base for ambulance provision across NZ - under multiple providers. The current standards mention crew composition of a doctor along with either a nurse or a paramedic - something that I absolutely disagree with (as a nurse & as a paramedic). This standard is up for review & I encourage COASTN membership as a whole to consider how you wish the committee to formulate submissions on this - as it may well fit with discussions to be held at the AGM on the remit proposed over enhancing current COASTN standards & the skills & competency framework.

As we approach summer, with its increase in tourists (aka cruise ship season here in the South!) enjoying some of the more scenic & less well resourced areas of our beautiful country, workloads of our respective services often increases. Please look after your own health in respect to the workload &, as the holiday season approaches, I hope you all have the opportunity to take some leave & enjoy some time in the sun with family & friends.

Nurses all too often spend a lot of their working lives taking care of other families - so never pass up the opportunity to take care of your own & yourselves....

Best wishes for the remainder of 2017, and here's to 2018 - waiting to see if the change in Government brings any benefits to the area of health & the education of the next generation of health professionals!

Toni Johnston



New Zealand Nurses Organisation | College of Air & Surface Transport Nurses

One Day Symposium & AGM

Commodore Hotel, Christchurch Airport

Monday 13th November 2017



COASTN Aeromedical Symposium

“Ready Steady Go...”

Commodore Hotel, Christchurch Airport
13th November 2017

INFORMATION

Our next symposium is designed as a one day “fly-in fly-out” to save costs on accommodation for those who cannot be away overnight. With a starting time of 9am and with late flights departing Christchurch to all major cities there will be time to enjoy refreshments at the Commodore Hotel Bar prior to departing.

GETTING THERE:

There is a courtesy bus to and from the Commodore Hotel situated outside Christchurch International Terminal beside the Domestic Terminal, operating 24/7. The Commodore Hotel is situated 2.2km from the airport, at 449 Memorial Ave.



WHATS ON:

For those of you fortunate enough to get time off to stay overnight for the Tuesday following the symposium (14th November), the New Zealand Trotting Cup meeting is held; New Zealand's equivalent to the Melbourne Cup! This is a great opportunity to get your colleagues together following the symposium to enjoy some team bonding at the races.



Admission to the NZ Trotting Cup ranges from \$20-\$70; and many pubs do pre-booked champagne breakfasts with transport to and from Addington raceway. The first race starts at 11:50, with the NZ Cup at 17:30, not to be missed.

ACCOMMODATION:

As this is the beginning of Canterbury Cup and Show week ensure you **book your accommodation** early to avoid disappointment. Many websites offer accommodation with **free cancellation** and no deposit such as WOTIF.COM, so book even if you are unsure of your plans. Cancellations are accepted up to 72 hours before the booking date in most instances.

Accommodation on Wotif.com near the Commodore Hotel and Symposium venue includes:

The Commodore Hotel 5 star \$250 p/n.

Airport Gateway Motor Lodge \$159 p/n (500m walk to symposium venue)

Airport Palms Motel \$165 per night (550m walk to symposium venue)

Airport Christchurch Motel \$182 p/n (600m walk to symposium venue)

Airport Delta Motel \$196p/n (650m walk to symposium venue)

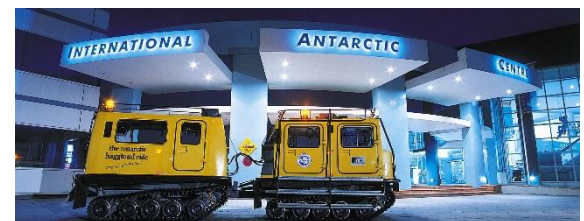
GARDEN CITY AIR CENTRE:

If anyone is interested in viewing the new Garden City Air Centre then there is opportunity on Tuesday morning for a short tour. The multi-purpose centre is the largest of its kind in Australasia offering a fully integrated, single-purpose Emergency Medical Service air ambulance facility, and a purpose-built reception gateway base for the rapidly growing tourism and corporate jet market. The new 9,000sqm building currently under construction air-side along with new runway access at Christchurch International Airport is due for completion in May 2017. Email COASTN2017@outlook.co.nz to express your interest in a look around on the Tuesday morning.



OTHER ACTIVITIES:

The **International Antarctic Centre** is a short walk from the Airport and has real snow and ice, little blue penguins, Hagglund rides and is the closest to Antarctica you can get. Come and enjoy one of New Zealand's best tourist attractions.



The **Air Force Museum of New Zealand** is the national museum for the Royal New Zealand Air Force (RNZAF) and one of New Zealand's premier attractions. Located on the site of the former Air Force Base at Wigram, the Museum offers a unique and memorable visitor experience. With over 30 historic aircraft, hands-on exhibitions and programmes, guided tours and even a flight simulator, all with FREE entry, it is the ideal place to come for plane enthusiasts.



The **Gondola** offers a unique Christchurch sightseeing experience that you'll never forget. Soar suspended above the valley as the birds fly beneath your cable car. Enjoy breathtaking views of the Christchurch cityscape, over the Canterbury Plains out to the mighty Southern Alps and the dramatic hills of Banks Peninsula.



The Christchurch **Rebuild Tour** offers a unique guided experience through the past, present & future of Christchurch city. Follow the innovative progress that Christchurch is making following the earthquakes of 2010 and 2011.

The Rebuild Tour is one of the best things to do in Christchurch and one of the best ways to experience the sights of this emerging, new city.



Punting



Tram



Botanic Gardens

THANK YOU:

On behalf of the Christchurch Air Retrieval Service and the COASTN Committee we thank you in advance for your support of the COASTN 2017 Symposium and hope it will be beneficial to your practice and the people you care for. We also hope you get the opportunity to explore Christchurch and meet some of the wonderful, resilient people who live here.



NZNO coastn

COLLEGE of AIR & SURFACE TRANSPORT NURSES



ONE DAY AEROMEDICAL SYMPOSIUM AND AGM PROGRAM

Commodore Hotel, Christchurch Airport

Monday 13th November 2017



Tea & coffee

0800-0900

AVON NORTH

0800-0900	REGISTRATION OPENS
0900-0915	POWHIRI AND HOUSE KEEPING
0915-0930	DAVID BOWIE Medical Director Christchurch Air Retrieval Service COORDINATED DECISION MAKING
0930-1000	FLIGHT AREAS 5MIN TALK EACH CHCH, Hawkes Bay, Dunedin, NZAAS, Nelson, Waikato, Wanganui
1000-1100	AGM

1100-1120

Morning tea

1120-1140	JOHN GARRET SMO Paediatrics Christchurch Public Hospital INTRODUCING TELEHEALTH - THE JOURNEY
1140-1200	ANGELA COWARD Flight Nurse NZAAS Delivering peritoneal dialysis through improvisation in a resource poor environment. A case study from the Cook Islands
1200-1220	BRANDON BURKE Consultant Christchurch ICU PARAMEDIC/DR FLIGHT CREW - WHERE TO FROM THERE
1220-1240	KATE LAWRENCE Starship Childrens Hospital PAEDIATRIC CASE STUDY
1240-1320	Lunch

1320-1340	FERNAH PEACEY Flight nurse (CCDHB) USE OF SIMULATION TRAINING FOR FLIGHT NURSES
1340-1400	SHAYNE LYNCH ICU Paramedic Canterbury Westpac Rescue Helicopter CASE STUDY
1400-1420	PENNY BEE Flight Midwife - CDHB DECISION MAKING MID AIR EMERGENCY
1420-1440	GRAEME WEBSTER Christchurch Air Retrieval TBA
1440-1500	RACHEL RIACH Flight Nurse - CDHB RETRIEVAL OF PSYCHIATRIC PATIENT FROM CHATHAM ISLAND

1500-1520

Afternoon tea

1520-1540	ANNE JACKSON NICU Coordinator "WHAT TOOK YOU SO LONG' THE CHALLENGES OF NEONATAL TRANSPORT
1540-1600	JESS FIELDS Starship Children's Hospital TBA
1600-1620	DIANE POLLARD West Coast District Health Board PATIENT TRANSFERS WEST COAST STYLE
1620-1640	NEIL DAVIDSON Consultant Christchurch ICU WRAPPING UP
1640-1700	PRIZE GIVING/AWARDS

Drinks and nibbles at The Commodore Bar

THANK YOU AND SAFE TRAVELS HOME

Upcoming Events

ASA+FNA 30th ANNIVERSARY CONFERENCE
HOBART TASMANIA
West Point Tasmania
SEPTEMBER 26th-28th 2018

30
AEROMEDICINE
THE NEXT 30 YEARS



NZ RESUS 2018 – COMING OF AGE

IMPROVING OUTCOMES FOR 21 YEARS

CONFERENCE 19-21 April 2018 Te Papa, Wellington

VISIT confer.co.nz/nzresus2018

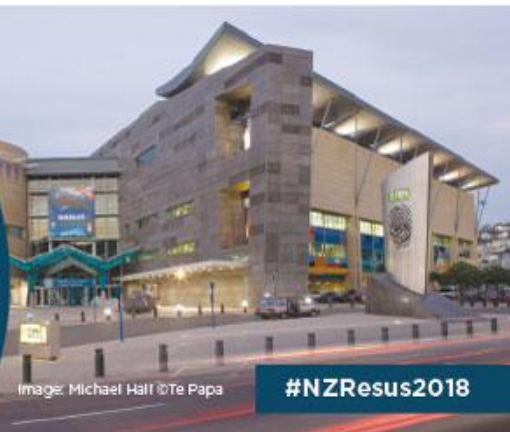


Image: Michael Hall ©Te Papa

#NZResus2018

**ICFNAE 2018: 20th International Conference on Flight
Nurses and Aeromedical Environment**

Paris France 15 & 16 March 2018



AEROMEDICAL RETRIEVAL COURSE 2018

April 16th – 20th (inclusive)

Venue: Auckland – AUT Manukau campus

16 TOTAL POSITIONS AVAILABLE

NZ FLIGHT NURSES: (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.

PARAMEDICS - (2 positions):

Applicants must be a qualified paramedic either working in the aeromedical environment or about to move into it. Evidence of this must be provided with your application

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

Application forms for the course 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 12th March 2018. 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 26th March 2018

TIME LINE:

- Applications close 26th January 2018 (please do not send payment with application)
- Applications will be reviewed by the COASTN Committee week commencing 29th January 2018. Notifications of acceptance/or not will occur in the same week
- The week commencing 5th February 2018, comprehensive course information will be sent out including the bank account number to make payment.
- A USB stick with pre-reading will be sent out the week commencing 26th February 2018
- On notification of acceptance to the course, fees need to be paid by 12th March 2018. A late fee of \$100.00 will be strictly enforced.

AEROMEDICAL RETRIEVAL COURSE 2018

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 (and are still working in the aeromedical environment)
3. NZNO/COASTN members
4. A fully completed, professionally presented application form accompanied by ALL required documents, provided on time.

AEROMEDICAL RETRIEVAL COURSE 2018

April 16th – 20th 2018
Timeline

Applications to be in by 26th January 2018
Late applications will not be accepted

- During the week commencing 29th January 2018: COASTN committee meets to discuss & select participants. Applicants will be informed by email if they have been accepted onto the course or not.
- Week commencing 5th February 2018: course information sent out online
- Week commencing 26th February 2018: pre-reading sent out on USB stick

12th March 2018 - latest date that course fees need to be paid by
a late payment of an additional \$100.00 will be applied for any payments
after this date

26th March 2018: any withdrawals from the course after this date will incur
a \$150.00 fee

Any questions please email Di Fuller on:
difullernzfna@gmail.com

AEROMEDICAL RETRIEVAL COURSE 2018

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

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

For any student who has received DHB funding or an 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, accompanying the 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

AEROMEDICAL RETRIEVAL COURSE 2018

April 16th – 20th (inclusive)

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

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

Surname: _____ First Name: _____

Address: _____

Home ph: _____ Mobile: _____

Email: _____

Specific Area of work: _____ DHB: _____

Cost: Flat rate of \$NZ1500.00 incl. GST

1. Payments are to be made no later than 12th March 2018 or a late fee of \$100.00 will be applied
2. A 10% cancellation fee will be applied if you withdraw your application after 26th March 2018

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 (flight course assignment is to be written at level 8)

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

APPLICATION IN BY
26th January 2018
(Do not include payment at this stage)

Regional



Roundups

WAIKATO ICU TRANSPORT TEAM

The Waikato Flight team has been busy over the past few months, with a noticeable increase in the past year.

At each of our transport meetings a case study is presented as part of our formal education. One recently was about re diverting to a road traffic accident. This experience showed how very important good communication is between the air team and the ground support.

The Waikato region spans such a vast area of remote country side and often there is more than one request made for the helicopter. Unfortunately finance doesn't allow us the privilege of more pilots, so it is often first in that gets the helicopter. However, that is not to say that whenever the team from Waikato is out that a request would not be considered. It is up to the whole team to be on side with re diverting if the request is made.

Not all ICU nurses and doctors feel confident at being first responders and if the team are not all happy to divert, then they continue with the ICU retrieval work and other options are explored by the requester.

However, on this day the ICU retrieval team had just got

airborne for Taranaki Base Hospital to retrieve a sick child. A call came from Communications for assistance with a motorcycle accident on a remote King Country road. Air 1 Hamilton was the closest medical assistance available. The Taranaki helicopter was activated but it would have an ETA of at least 1 hour. Reports were one victim who was seriously injured.

The discussions on board the helicopter commenced immediately as there was very little time to waste. There were several calls to the Waikato base involving the ICU consultant on call and the ICU Associate Charge Nurse. The team on board were all confident and happy to re divert but there were some severe short comings with equipment. The team had originally been despatched for a paediatric so was geared towards the paediatric patient, resulting in no adult monitoring in the packs. There was a ventilator and other equipment such as IV access, chest drain insertion gear and intubation gear. But no first aid equipment such as bandages and only one 500ml bag of fluid.

The helicopter diverted to the scene and decided to take on the one pack with most of the equipment mentioned above. The

monitor was no good as for reasons mentioned above and the ventilator was left with the helicopter. This could later be retrieved if required. This was at risk of damage from mishandling and also getting wet from the environment.

The team found the patient precariously slumped in a ditch. So not only did they have to deal with the trauma of the patient, but also adapt to another challenging environment. One that wasn't familiar to them and one that presented them with further issues. They dealt with the problems faced and looked after the patient until the Taranaki Base helicopter arrived and handed over. How many road traffic accident victims had intra arterial lines inserted at the road side?? A difficult intravenous access that struck an artery. Only by an ICU registrar!!!!

The team boarded back onto Air 1 and discussed the plan - to continue on route to Taranaki or return to the Waikato base. Having grovelled in the ditch for some time the nurse was extremely wet and muddy and did not wish to continue in the state that she was. The pilot, however, was keen to continue.

On further discussions and further phone calls to base and to Taranaki, it was decided to return to base and another ICU team would be activated to retrieve the child.

Several issues supported this decision. Firstly the pack was severely depleted with IV access equipment, drugs, and everything had been opened at the scene to access the gear. Therefore the pack was a mess.... Not to add wet and dirty from sitting in the ditch. Again with one person not happy to continue, that meant that the team respected that

person and the retrieval was aborted at that time.

On reflection of this situation, the nurse commented how very important good communication was in this situation. Giving clear information so everyone involved in the team, both air and ground teams, knew what the plan was. Again respect shown to all team members was highlighted when the decision was made to divert and also to abort the original retrieval plan. An informal debriefing between the air team occurred on the way back to base

and then further discussions were had once at base with the land support crew.

This incident could occur on any of our Waikato transports but unless all our team are happy to divert, a decision will be made to continue with the transport. Communicating openly and honestly is vital for the great team work that we encounter here on our Waikato Transport Team.

Sheree Gare MN
(Clinical), BN, PGCert (Emerg), RN.



Watch this space for the next update with all new and exciting uniforms and logos for the Starship PICU Transport Team

Hello fellow flight nurses throughout New Zealand. We thought it was about time we had a paediatrics update for you all. Hope you all have had a safe winter flying. We have had several new members join the team and some of the 'oldies' moving onto other roles which has lessened their flying hours.

Stats and figures

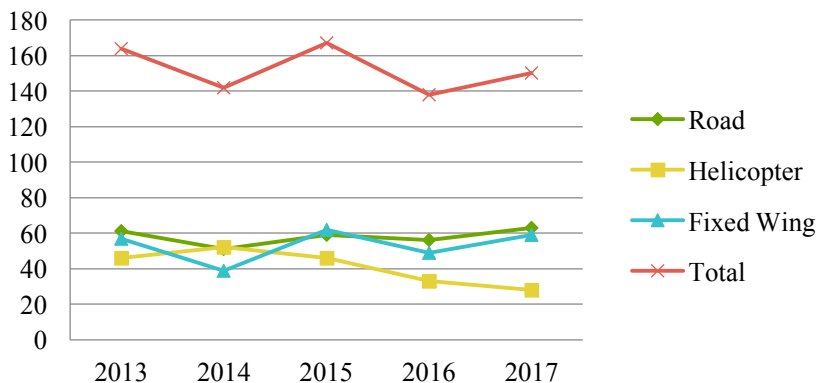
This winter we have had what has felt like a busy one out and about, but when we look at the actual numbers of what we have been up to it doesn't seem to reflect the busy feeling or the

complexity of the patients we have transported this winter.

Overall we have done 150 transports this winter, this certainly has helped to keep us busy in-house as well.

There have been a few occasions that ice, fog and general bad weather has made life a lot trickier for us all, but we all arrive back, smiling (all be it a little disheveled sometimes).

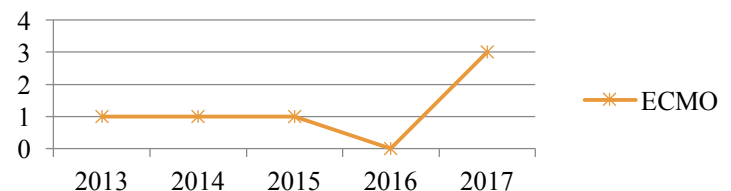
Apr-Sept Transports



ECMO

As an added aside we have also had our record numbers of paediatrics transported on ECMO this winter alone.

ECMO Transports Apr-Sept



We are all now looking forward to the warmer weather for flying, where we hope it will be less bumpy and we will see a change in our patient population.



NZ FLIGHT SERVICE CONTACTS

Northland	Sarah.Pickery@northlanddhb.org.nz
Auckland NICU	SPeachey@adhb.govt.nz
Auckland NZAAS	assistance@nzaas.co.nz
Starship	assistance@nzaas.co.nz
Waikato ICU	christine.craig@waikatodhb.health.nz
Tauranga	Dianna.Keys@bopdhb.govt.nz
Gisborne (Tairāwhiti)	Jacqueline.Johnson@tdh.org.nz
Hawkes Bay	Maatje.Hiko@hawkesbaydhb.govt.nz
Wanganui	joanna.knight@wdhb.org.nz
Wellington	
WGTN NICU	Sarah.Cody@ccdhb.org.nz
Nelson	Robyn.Price@nmhs.govt.nz
Christchurch	shane.mckerrrow@cdhb.govt.nz
Christchurch NICU	Sue.moore@cdhb.health.nz
Dunedin	antonia.johnston@southerndhb.govt.nz

Wanted desperately

Articles, items of interest,
& photos!

Have you got an article or update that
could go on this page. Photos always
appreciated.

Send it to the magazine editor

Kelvin Still

C/o Transport Team

Hawkes Bay DHB

or email kelvin.still@gmail.com

University of Otago, Wellington



WELLINGTON

Postgraduate Certificate in Health Sciences (Aeromedical Retrieval and Transport)

AVME719 Operational Aspects of Aeromedical Retrieval

- 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

- 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

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

For further details please contact: oamu@otago.ac.nz or check out the website: otago.ac.nz/aviation_medicine

