CareFlight Clinical Placements for Undergraduate CDU Nursing Students
CareFlight History

• CareFlight is a not for profit organisation
• Commenced 25yrs ago by doctors at Westmead Hospital in Sydney who saw a need to take a medical specialist to accident sites and interhospital transfers via helicopter
• Organisation grew to include International jet reparation, bases in Sydney, Cairns, Darwin & Perth
• CareFlight holds teaching accreditation with the colleges of Emergency medicine, Anesthesia & intensive care
CareFlight History continued

• CareFlight has provided helicopter retrievals in the Top End since late 2008 with the previous aeromedical fixed wing provider NTAMS

• CareFlight had provided an interim aeromedical retrieval service from June 2010 until 2011 whilst the NT government considered applications for long term tender

• CareFlight successfully won the 10 year tender to provide aeromedical retrieval & rescue in the Top End in June 2011
CareFlight Today

- 3 bases – Darwin, Katherine & Gove
- 3 Kingair B200 medically configured pressurised aircraft with a 4th rotating through maintenance
- 2 of these aircraft based in Darwin, 1 in Gove
- CareFlight Medical Escort (CME) pressurised, low acuity patients in a smaller twin engine aircraft based in Katherine
- 1 helicopter based from Darwin
CareFlight Medical Escort (CME)

- Low acuity non infectious patients
- Stretcher loading or walk on
- 1 stretcher and 4 seats
- Pressurisation
Helicopter

- Generally 1 stretcher patient

- Can occasionally take an additional seated patient/escort depending upon available fuel load

- Also contracted for Search & Rescue (SAR) tasks by Australian Maritime safety authority (AMSA)
Retrieval tasking procedure

- Patient arrives in clinic & discuss the clinical assessment & care with the RMP
- The RMP will record a consultation form from the information provided regarding the patient
- If the RAN & RMP feel the patient needs to be medivaced out of the community, the RMP will contact the MRC for retrieval for high acuity transfers. (Low acuity stay with RMP)
- LCU will task the appropriate aircraft, pilot & medical crew within the allocated time frame, depending on other priority taskings, existing tasks, weather, pilot hours & crew shift limitations
Retrieval tasking procedure continued

• The consultation form is faxed to LCU who then passes it onto the flight nurse +/- flight doctor

• The MRC/flight nurse (+/- flight doctor) will contact the clinic RAN for a handover & clinical update of the patient & request any special patient preparation prior to transport. They will also advise of transfer point: tarmac vs clinic

• The medical crew & pilot prepare equipment & aircraft for departure

• When the aircraft is airborne LCU will contact the clinic with a confirmed ETA
• Majority of patients are collected at the airstrip. This enables our limited aircraft resources & staff to deal with the greatest numbers of patients within their duty period

• Meeting the aircraft & medical crew at the airstrip also allows us to collect the patient whilst we have another patient on the aircraft from another community or hospital. If we come into the clinic we cannot leave a patient unattended behind on the aircraft

• For critically unwell & injured patients we will decide if we need to come in to the clinic to adequately assess the patient & provide medical interventions & stabilisation prior to transport. We &/or LCU will notify you if we intend on coming into the clinic
• Runway inspection has been completed

• Provide a clinical handover to the medical crew before transferring the patient from the ambulance-cool environment.
The medical crew will review documentation, secure the patient for safe air travel, record vital signs, attach appropriate monitoring & brief the patient about the flight & safety aspects before departing.
• We request clinic staff wait at the airstrip until after we have taken off & can no longer see our aircraft in the sky

• Occasionally problems arise with the patient or technical problems with the aircraft, requiring us to abort our departure or turn back to the community airstrip for an emergency landing

• In these remote environments we rely on clinic staff to assist us in such an emergency
• The flight nurse contacts LCU once airborne to provide an ETA at the next or final destination

• LCU coordinate St John Ambulance to meet the aircraft & transport the patient(s) to the destination hospital

• Often the flight nurse will accompany the patient all the way to the hospital
Completion of the aeromedical task

- The aircraft is refuelled
- O2 is refilled
- Medical consumables, supplies & equipment is restocked
- Stretchers decontaminated & inside of aircraft cleaned
- Aircraft serviceability & pilot hours are confirmed

- All this needs to be confirmed prior to tasking another flight
Understanding the aviation environment

• At altitude there is a decreased partial pressure of oxygen. As a result patients may require supplemental O2 during flight

• With increasing altitude there is a decrease in atmospheric pressure which results in increased gas volumes. Gas expands & contracts during ascent & descent. This effects patients with trapped gases in body cavities
Understanding the aviation environment continued

Other problems encountered during flight:

• Vibration
• Noise
• Decreased temperature (hot – cold – hot)
• Acceleration/deceleration forces
• Dehydration & decreased humidity
• Fatigue
• Constant movement
• Motion sickness
Preparation of patients for aeromedical transfer

• The essential principle of aeromedical transport is the adequate and correct preparation of the patient prior to flight

• You can help us & the patient by providing accurate clinical information & undertake appropriate clinical interventions & treatment prior to transfer

• Our goal is to provide a hospital level of clinical care & management for the duration of aeromedical transport
The aircraft environment we work in is cramped with little space to move around.

There are times during the flight we can not get out of our seat to attend to the patient.
General patient preparation principles

• Record the patient’s weight ideally before contacting the RMP
• Ensure documentation is update to date with latest vital signs, fluid balance & medications recorded & placed in the CareFlight transfer envelope
• Complete the front of the CareFlight envelope
• Ensure adequate analgesia is given prior to moving the patient from the clinic
• Ensure bags of IV fluids are reasonably full
• Patients go to the toilet prior to coming out to the airstrip
• Those patients not fasting to have oral fluids prior to transfer
General patient preparation principles continued

• Antipyretics are given to children with fevers
• Patients on oxygen in the clinic are transferred to the airstrip in the ambulance on oxygen
• IV cannulas are inserted preferably in the right arm, patency ensured & secured with a bandage
• Antiemetics are given
• Patient luggage is minimal due to lack of space on the aircraft, free of dangerous goods such as cigarette lighters, matches & large aerosol cans
Specific patient preparation

Obstetric patients

• Preferable for 2 IVCs to be inserted
• If birth imminent prior to our arrival keep the patient in the clinic & send someone out to the airstrip to collect us – we will come in to the clinic
• Aggressive approach to the use of tocolysis – aim is to transfer the baby in the womb
• Patients in prem labour are stretched on to the aircraft
• Women with PV loss ensure a pad is insitu
Specific patient preparation

• The pilot & medical crew can refuse to load & transfer a patient or escort if it is seen they may pose a safety risk during the flight

• The same principles applying to airlines apply to us – passengers & escorts are not to be under the influence of alcohol or other drugs prior to bordering the aircraft

• Sometimes it is worth delaying a transfer if the clinical need allows if the patient is intoxicated for safety reasons
Airstrip Safety

• The safety during aeromedical transfer lies with the community, clinic nurses & CareFlight staff jointly

• Only those involved with the direct transfer of the patient are to be on the tarmac. Ensure the airport gate is closed after you’ve entered the airstrip

• Have the family say their goodbyes in the clinic prior to transfer

• Approach the aircraft only when the beacons are turned off & the aircraft door has been opened by CareFlight crew

• Do not reverse the clinic ambulance without a direction from CareFlight crew, preferably the pilot
What Will Be Expected of You

- Be punctual and professional presented
- Listen to instructions in the aviation environment
- Assist with care and transportation of the patient and equipment
- Learn the ways of the flight nurse and crew
- Ask questions and enjoy the experience
- There may be flights you are unable to attend due to tasking crew and weight limitations
What To Expect

• Neonatal transfers to motor vehicle MVAs to psychiatric to obstetrics on FW and RW
• Experienced flight nurses with extensive skills
• Amazing scenery and remote communities
• Confined environment which relies on efficient packaging of gear and patient
• Hot working environment during wet season.
• Flexible work environment
• Education training
Our job is not only to provide aeromedical transport & clinical care to patients, but to support remote area health practioners in the ongoing care & management to those patients requiring medivac. Please ring us or ask us any questions any time.