



# **Adult Retrieval Victoria**

## **Coordinator Guidelines**

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## **Adult Retrieval Victoria Coordinator Guidelines**

### **Contact and Availability:**

- The Coordinator will be contacted by the ARV Call Taker, by either phone or page.
- The Coordinator will carry both mobile phone and pager while rostered.
- The Coordinator will be available to discuss the case with the requesting party within 5 minutes.
- All phone contact will occur via **1300 368 661** to enable voice logging for quality assurance processes.
- Calls will be received from across the entire State – regional retrieval services will refer to ARV as the central coordination office.
- The ARV Call Taker will facilitate a conference call with ARV, Coordinator, Referrer (and the regional retrieval service duty medical officer for cases originating in their catchment area) in the first instance
- The ARV office will provide information to the Coordinator regarding available critical care beds in the State (determined by phone-round of all units).
- The ARV Call Taker will check and log coordinator pager and phone serviceability and access daily.

### **Call Processes:**

- The coordinator will at all times communicate in a professional manner, respectful of the circumstance of the referrer, the stressful nature of critical incidents, and the role of ARV and AV in the State Health System.
- The coordinator will obtain base level information initially
- The coordinator must remain mindful of the need for optimal communication styles, and of communication strategies that may be applied to ensure complete and clear communication of relevant clinical and risk related matters with the referrer.
  - Always allow the referrer to complete statements – do not complete for them / put words in their mouths
  - Reflective checking is valuable: “Thank you Dr X, I understand from your statement that the patient is ..... – is that correct?”
  - Ask direct risk related questions: “Dr, Do you perceive any major risks or hazards in the transfer of this patient?”
  - Leave the door open for further communication: “If you think of anything else that may be important or that arises after this call, please phone me back”
- Consideration will be given to early inclusion of other parties in the conference call (e.g. AAV Flight Coordinator, Regional AV ops centre, receiving unit or Trauma Service, Duty Retrieval Physician, Flight MICA/Paramedic)
- The coordinator will determine whether the request is for one or more of:
  - Request for assistance with accessing a critical care bed or time critical intervention
  - Request for assistance with inter hospital transfer
  - Clinical Advice
- The coordinator will assess the clinical and situational information provided, and formulate a plan in consultation with the referring party. Decision making in such circumstances is often complex. (Issues for consideration are included in the attached appendix.)
- The coordinator will provide clinical and logistic advice as required to the referrer. This advice may be to the requesting hospital, Retrieval Physician or paramedic escort. The coordinator may need to seek assistance in some areas of clinical medicine. Specialists in the receiving hospital should also be considered as sources of advice.
- Where a Critical Care bed is required, the ARV Call Taker will confirm availability and notify the coordinator immediately (and facilitate telephone connection with that unit).

**Retrieval:**

- **Early activation** is imperative to optimize system efficiency and responsiveness. Activation may occur prior to the known availability of a destination (receiving) hospital.
- Activation includes early communication with all resources / platforms: AAV, AV, Regional AV.
- The **coordinator will determine the crew-mix** that has the most appropriate skill set for a specific clinical scenario. Principle factors involved in this decision will be clinical complexity and patient instability (actual and potential).
- **Current crew options** include ARV retrieval physician, source hospital medical or nursing staff, MICA Flight Paramedic, MICA Paramedic, Ambulance or Flight Paramedic and combinations of these.
- For all retrieval missions, the coordinator will discuss the case and clinical details with the responding crew (doctor or paramedic).
- **MICA road crew transfers** within the metropolitan area should be considered as a retrieval option only when the clinical situation requires an emergency level of response (re time criticality), or the setting is analogous to a primary response. In other circumstances, it is more appropriate to task ARV staff (according to hospital type) or to negotiate transfer by the referring hospital.
- ARV normally facilitates **logistics** of all ARV, AV or Regional AV escorted transfers. Cases where metro hospitals are providing escort for metro IHT (eg ARV has provided bed access services) are to be organised by the referring hospital via their usual non-emerg provider or AV.
- At present, **metropolitan public hospitals** are expected to provide a medical escort for transfers. (Exceptions are Weribee Mercy, Williamstown, Sandringham, and Private Hospitals). ARV may provide retrievalist support to other metro hospitals on consideration of the case by the Director or Clinical Advisor ARV.

Crewing Skill Mix Matrix

	Highest Crew configuration, may be multiple.
	High level crewing
	Intermediate crewing
	Standard crewing

<b>Complexity</b>	Extreme								
	High								
	Mod								
Low									
		Stable	Low Risk	High risk	Unstable				
		<b>Instability</b>							

- **Retrieval Physician Tasking:**  
Retrieval missions will be allocated to the most appropriate RP responder according to required skillset, physician location and mission activation urgency i.e. particular staff with specialised



There are several modifying factors in platform selection:

1. Platform activation time
  2. Return destination
  3. Crew activation time
  4. Secondary ground/air transfer times
  5. Clinical Issues e.g. equipment and space needs
- **Failure to resolve platform or crew response decisions** within a reasonable time period (60 minutes) requires escalation of the issue to ARV admin-on-call, AAV manager, AV DTM, regional duty manager or others as appropriate.
  - **Road Transport Platforms:**

The current options for road transport platforms include – emergency ambulance, CPAV, HATS, non-emerg vehicle. Due to current staffing and crewing structures the standard approach to road vehicle choice is as follows:

HATS (with driver + Crit Care Nurse crew) is preferred option during periods of availability, and if response time is appropriate, unless

ARV Coordinator contacts HATS in the first instance as this is the preferred resource for ARV retrievals

If HATS is not available the ARV Coordinator contacts the **Clinician**

In consultation with the ARV Coordinator the **Clinician** will provide the most appropriate resource to accomplish the retrieval. In most cases this will be an AGP with at least one ALS qualified paramedic aboard

If the ARV Coordinator determines that the retrieval requires MICA skill sets to assist the retrieval physician (uncommon), the **Clinician** will organize a CSO/SRU to accompany or a MICA vehicle to do the transfer

The **Clinician** may consider the use of a CPAV or Netcomm vehicle if they are able to resource either unit with an ALS qualified or MICA paramedic

If required, the ARV Coordinator can liaise with the Clinician to determine clinical requirements prior to contacting the **Clinician** to organize the retrieval

Activation of HATS is performed via Coordinator contacting NPT (private ambulance service) on 1300 628728 (The RASO will fax a booking form to Netcom also).

Duty Team Manager AV - 1300 551 624

### **Trauma Calls (Via State Trauma Line):**

Commencing July 2008, ARV will facilitate the Statewide Trauma Advice and Referral Line. Referrers call 1800 700 001, to activate this line. ARV RASO staff will answer the call. (See flowchart attached)

- Paediatric calls will be immediately transferred to the RCH
- Adult calls will be transferred to the requested trauma service
- The Critical Care Coordinator will be conferenced into this call and may offer advice in regard to patient transfer or retrieval.
- All calls will be recorded as per standard ARV processes
- The Coordinator may depart calls at their discretion if content is not of relevance to transfer or retrieval (after informing other parties of this departure).

### **Critical Care Bed Access Restriction & Defined Patient Transfers**

This guideline relates to the DHS Interim Critical Care Capacity Guideline. (<http://www.health.vic.gov.au/criticalcare/ccguide08.pdf>)

Critical Care Access Restriction: occurs when ARV consultation mechanisms and/or the critical care bed website indicates that a critical care patient cannot be placed in an appropriate public or private bed within the next 6 hours.

Procedure to be followed at the time is outline on the attached flowchart, and includes notification of Director or delegate, and a number of external stakeholders including ICU directors.

Should there be need for a patient to access a bed in this setting (and no bed is available) a defined transfer may be authorised by the Director of ARV or delegate. The process for this is outlined in the attached flowchart.

This process applies for patients needing retrieval to a site where definitive care can be provided, and assumes that such care is not available at the point of referral. The process assumes that the patient will gain a higher level of care through this transfer. A patient should not be transferred under this policy if all that is achieved is the same standard of care in another setting e.g. transfer of an intubated overdose patient from ED in a metro centre with ICU consultation to the ED of a tertiary centre.

Decisions about which hospital is to receive the patient will be made after consideration of:

- Capability and capacity of the referring health service.
- Nature of the surgical/other intervention required by the patient.
- Capability and capacity of the potential receiving health service.
- Nature of the clinical condition.
- Degree of clinical urgency.
- Known or anticipated critical care system demands.
- Normal referral and historical clinical relationship patterns.
- Geographical proximity.
- Needs and consideration of the patient's family.

Documentation, analysis and reporting of episodes is outlined in the attached flowcharts.

### **Perinatal Emergency Retrievals**

The Perinatal Emergency Referral Service (PERS) is a state-wide service providing maternity care providers in Victoria with a coordinated and timely safe approach for;

- Providing access to optimal expert clinical advice about perinatal emergencies.
- Providing access to obstetric and neonatal resource information.
- Facilitating perinatal emergency transfers to appropriate facilities when required.

In cases where there is likely rapid deterioration in maternal condition without specialist intervention, such as occurs with major post-partum haemorrhage, uterine rupture, or acute respiratory failure, or where the mother is or is likely to become critical, PERS will refer case coordination responsibility and management of the mother to ARV.

In such cases:

- The PERS consultant will contact the ARV critical care coordinator and provide a handover of the clinical status.
- Both consultants will discuss the priorities and clinical needs of the case (including but not limited to):
  - Pregnancy specific care needs for the mother
  - General care requirements of the mother
  - The type of preferred destination unit for the mother
  - Neonatal care considerations (involve NETS if required)
- ARV will coordinate an appropriate crew response for the case
- ARV will coordinate appropriate transport for the patient via relevant AV Operations Centres and AAV where appropriate

- ARV will access an appropriate critical care bed for the patient
- The PERS consultant will remain aware of the case and provide consultation and input via intermittent briefings from the ARV coordinator, or through involvement in teleconferences
- The outcome of the case and / or transfer will be communicated to PERS by ARV.

## **Cross Border Retrieval Procedures**

Adult Retrieval Victoria (ARV) is responsible for retrieval services in Victoria. From time to time situations occur where a patient in Victoria requires retrieval to an interstate destination, or where ARV is required to retrieve a patient from interstate to a Victorian hospital.

### Principles

In these circumstances there are several principles that must be followed:

- The clinical care<sup>1</sup> of the patient is the primary consideration, and decisions made must not compromise patient care or outcomes.
- The usual domicile of the patient and relevant relationships they have with clinical services are significant. The patient's wishes must be considered, for example a patient request to be close to supportive family may mean a cross border transfer for someone living close to a State border.

### Coordination responsibility

Responsibility for coordination of a retrieval case fundamentally rests with the State in which the referral hospital is located.

Exceptions to this are:

- Patients located in southern NSW including Albury, Finley, Deneliquin and Barham, where long standing referral and secondary care links exist into Victoria.
- Some patients of Mildura Base Hospital - whose primary social support links or relevant immediate past clinical care links are in Adelaide (assumes Adelaide destination hospital).

### Interstate communication

Where ARV is coordinating a proposed patient retrieval from a Victorian referral hospital to an interstate destination hospital, a teleconference must occur between the ARV Critical Care Coordinator (CCC), the interstate Retrieval Services Coordinator (Adult), and any additional stakeholder (receiving and referring clinicians, retrieval team members, aviation service providers etc).

### Retrieval to an interstate destination

Patients will normally be retrieved by the receiving State retrieval service, however situations may occur where the referring State transports a patient interstate due to clinical platform logistics or availability e.g. ARV retrieves a patient from Mildura to Adelaide. ARV cases, with a planned interstate destination utilising ARV staff and AV assets, must be escalated to the ARV Director or delegate prior to commencement of missions.

### Contact numbers

- SA Coordinator (RAH Retrieval Service Air Medical Consultant) (08) 8222 4222
- NSW Medical Retrieval Unit (02) 1800 650 004
- Tasmania (03) 6336 5799

## **Documentation of Coordination**

- All requests for assistance will be documented and included in the ARV database.

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<sup>1</sup> The clinical care of the patient may be influenced by numerous factors, including (time) availability of in-state retrieval services, weather, platform availability, platform logistics e.g. weight limits

- The standard Coordinator Data Form will form the base level of data and information capture required.
- Completed Coordinator Data Forms will be faxed or e-mailed to the ARV office within the next working day.

### **Continuity and Handover**

- At the end of the shift, the Coordinator will handover to the Coordinator rostered for the next shift.

### **Staff Welfare**

- The nature of retrieval and coordination work can be stressful and difficult. Ambulance Victoria offers all staff access to peer support and counselling services. These may be accessed by individuals or via ARV management
  - Peer Support: contact via Corporate Paging (for duty peer support officer) 9483 8009; Phone: 0419 002 956 Email: peer.support@mas.vic.gov.au
  - Counselling Service: Ms Heather Bancroft, VACCU  
Phone: 9654 4144 Email: clinical.director@vaccu.com.au
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## **Decision-making Guidelines and Considerations for ARV Coordinators**

In some cases, requests for assistance **finding a bed** or transferring a patient come before all relevant investigations are available. This information may be necessary to determine appropriate bed, or of need for transfer, eg CT head, troponin levels. If clinically appropriate, some decisions and actions can be deferred until that information is available. In other circumstances, decisions need to be made with incomplete information. Some health services are unable to provide what some would consider basic investigations (eg blood gases)

The coordinator will determine what are the **highest priority patient factors** in facilitating bed access.

Does the patient require a time critical intervention (eg hot angiogram, neurosurgery, ruptured AA)? This may be a more important consideration than whether an ICU bed is immediately available for the patient.

For Cardiology patients: Do they (or are likely to) require access to (hot) angiography or monitoring?

For ICU: Do they require tertiary level care? Do they (or are they likely to) require access to specialized services (eg dialysis, thoracic surgery)

For drug overdose patients: There is likely to be a need for psychiatry services after ICU discharge.

For patients primarily requiring an **urgent intervention**, this should not be delayed while finding an ICU / CCU bed. If the intervention can be done in a hospital with a suitable bed, this will reduce the need for secondary transfer.

The coordinator will contact **appropriate units** based on the above. Initial requests should go to the lowest level hospitals able to deal with the current (and likely) clinical situation. This will ensure beds may be available for future more complex patients who may not be clinically suitable for the less complex hospital. For example, admitting an elderly, haemodynamically stable NSTEMI to Monash Medical Centre rather than Maroondah, may impact on ability to manage a (potential) young patient with STEMI and ongoing pain despite thrombolysis.

**Geographic factors** should be considered, because of impact on family and ambulance resources. This should involve consideration of regional base hospitals as appropriate.

If the requesting hospital has easy **helipad** access (eg Warragul), and the patient is suitable, consideration may be given to metro hospitals with easy helipad access (eg RMH, Alfred, Frankston, Northern, MMC) – this increases efficiency of the transfer process and resource use and is of particular relevance in trauma patients.

In general, **uninsured patients** should be preferentially placed in the public system, and insured (including DVA) into the private system. Exceptions include trauma (either TAC or Workcover) who should be transferred into the trauma system, and those requiring time critical interventions which may be difficult to facilitate in the private system (eg urgent craniotomy)

ARV is responsible for all costs incurred when moving a **public patient** from a regional/rural hospital (or patients from Werribee Mercy, RWH and RVEEH) which has no ICU Unit into a **private bed**. This does not apply to any metro/regional/rural hospital which has any ICU capability. All other factors being equal, preference should be given to placing rural patients into the public system.

In all such circumstances, it remains the responsibility of ARV to monitor the status of patients on a daily basis, and to assist in transfer of the patient to a public hospital at the earliest clinically appropriate time. It is the responsibility of the referring health service to make available an appropriate bed for the patient to be returned to as soon as possible.

Regarding **uninsured patients who self-present to a private hospital** ED and require critical care admission (ICU, CCU, HDU): If the patient elects to be a public patient (as opposed to agreeing to self-fund private care), then the hospital is responsible for all charges for the first 24 hours of care, after contacting ARV to request patient transfer. This 24-hour period allows ARV to find an appropriate public hospital, where it is clinically appropriate to transfer the patient. ARV is responsible for payments after the first 24 hours if the patient remains in the private hospital.

**Palliation & Non-Transfer.** The coordinator will consider whether the request is clinically reasonable, considering the clinical scenario, including where the patient currently is and what level of care can be provided. In some cases, it may be better practice for the patient to remain where they are, and to die in their own community in the presence of family.

**Mission crewing preference** is dependant on case complexity and actual or potential instability, and on matching crew skill set with known or anticipated clinical need:

In some circumstances, the preferred crew option may not be available, eg no retrieval physician available, no MFP available, time criticality may preclude waiting for RP to arrive at airport if response time is prolonged.

In some circumstances, the initially tasked crew officer may have reservations about their ability to comprehensively manage the patient. In these circumstances, the crew mix should be strengthened by addition or replacement with another crew member.

#### **Aviation resources:**

The allocation of aviation resources is not the responsibility of the Coordinator, but rests with AAV. Input can be provided, but it should be recognized that AAV may have multiple competing requirements, including primary response.

Aviation resources may not be available due to: weather conditions, pilot duty restrictions, aircraft maintenance or performance issues, or other tasking.

AAV, regional AV and the coordinator need to be involved in discussion related to the transfer of patients where the use of air resources is of marginal benefit or not available in a timely manner.

Where aviation platforms are not available, the ARV coordinator must facilitate alternate retrieval arrangements for the patient. This may include consideration of road platforms (such as HATS, CPAV, Emerg car – local or metro), and various options of retrieval team depending on availability and required skill mix. Failure to resolve response decisions within a reasonable time period (60 minutes) requires escalation of the issue to ARV admin-on-call, AAV manager, AV DTM, regional duty manager or others as appropriate.

For fixed wing transfers, a patient weight limit of 120kg exists due to engineering limitations around patient loading and aircraft floor load capacity.

For rotary transfers, patient weight limits are generally those of the stretcher (approximately 200kg) however the practical limitations of size and manual handling are usually reached by patients at much lower weights than this. Any patient >120kg must specifically be discussed with the flight coordinator to determine appropriateness for RW transfer.

#### **Night transfers:**

Transfer must never be delayed in a time critical patient. (This includes patients with significant risk of deterioration during the time delay).

Non Time Critical aviation transfers should not occur after midnight (air crew fatigue and human factors issues)

It is imperative that the skill set and capacity to provide ongoing care at the referral site is factored in any decision to delay a transfer.

All cases where transfer at night is delayed will be specifically audited.

**Time Critical:** In respect of Retrieval Transfer – A patient is considered time critical if the patient has a clinical condition which presents an immediate threat to life, limb, cognition or future quality of life, and

- Delay in definitive treatment will significantly increase that outcome risk, and
- Definitive management of that condition or threat is likely to be achieved by urgent transfer to another hospital, or
- Management of that condition definitively, or for a prolonged interim period, is beyond the resource capacity or clinical skill capacity of the current provider (or would result in unacceptable resource drain and exposure of other patients to risk).

In any situation where timely **retrieval response is not able to be provided** (due to crewing or weather, or other factors, this decision must be discussed with the referral agency, and every effort made to assist in resolving the problem or resource gap. Review of the status of weather or logistics within an agreed timeframe should occur, and further communication be undertaken if necessary.

For patients having interventions at the referring hospital (eg surgery, angiography) the coordinator should aim to have the retrieval platform on site well before the end of the procedure.

Unsedated **psychiatry patients** are not suitable for aero medical transfer due to safety concerns.

**Morbid Obesity.** Patients with morbid obesity (arbitrarily defined as: weight over 140kg, or BMI over 45) who require mechanical ventilation for management of pulmonary pathology, or who require mechanical ventilation and have other significant co morbidity, should routinely be crewed by ARV doctor and MICA. These patients must be considered clinically very complex and at significant risk for transfer.

It is not possible to lift **patients over 120kg** into the current fixed wing aircraft due to loading equipment limitations. This does not relate to rotary wing aircraft where patients over 120kg may be considered for transport on a case by case basis.

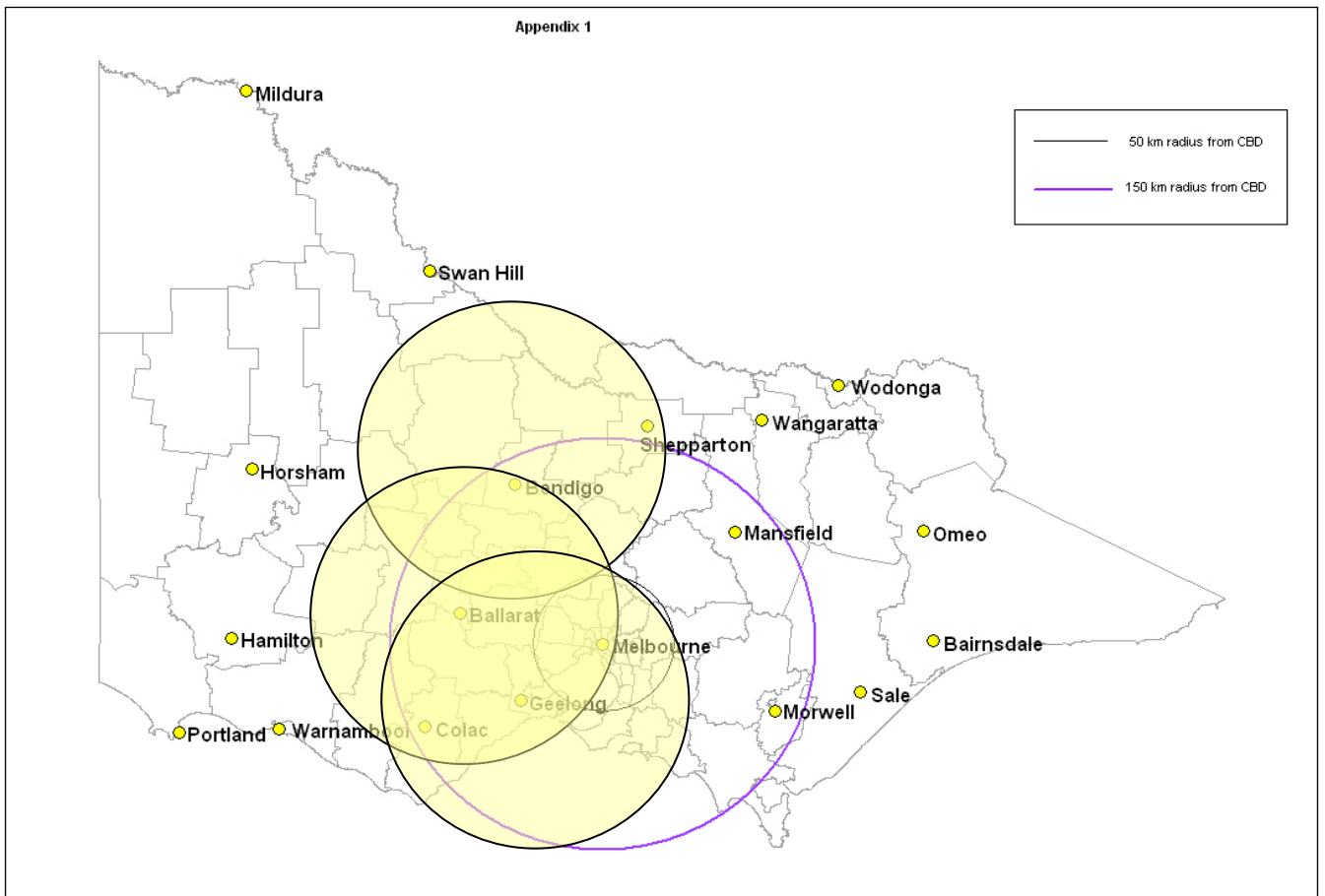
Patients with **IABP or ECMO.** Alfred Hospital and RCH provide transport ECMO services collaboratively with AV. ARV are responsible for logistics and platform coordination, and the receiving hospital for staff and equipment. An MOU exists between AV and these hospitals outlining these responsibilities and obligations. ARV contact for adult ECMO is the Alfred ICU. For IABP, some referring hospitals will provide IABP equipment and staff, ARV organising logistics and additional staff if required. For ARV initiated IABP, contact Perfusion Services 95856011, pager 96253184 or 1800641581 (James McMillan) – MOU in development.

**Issues or problems** which may arise must be handled in a collegiate and professional manner, with the patient well-being and clinical outcome the over-riding consideration. Issues that cannot be simply resolved must be **escalated** to the Director ARV or the Clinical Advisor ARV urgently. **Regional AV logistics or other issues** may be escalated via the Regional AV Duty Manager 24x7, through **(03) 53385323**

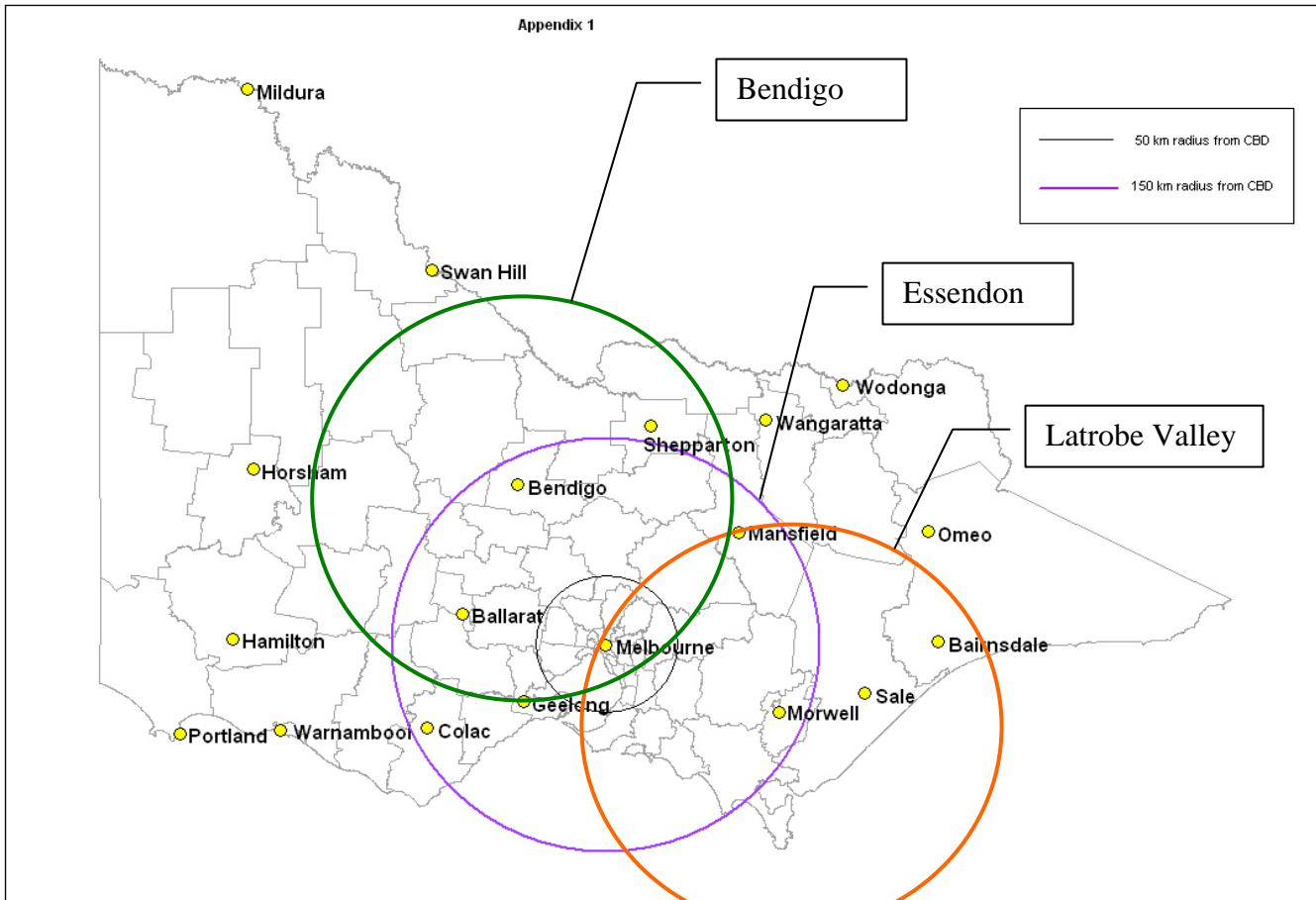
Any issue or event which exposes the service or a patient to risk or which results in harm to staff, public or patient must be reported via the **ARV Incident Reporting** framework.

The maps below indicates 100km ranges from each regional centre, and 50 and 150 km radius from metro, plus 150km radius from Bendigo and Latrobe Valley






### 100 Km radius from regional Centres



# 150 Km Radius from Helicopter Airfields



**Reference Files for ARV coordinators**

<b>Interim critical Care Capacity Guideline (DHS)</b>	Adobe Acrobat Document
<b>Critical Care Access Restriction (flowchart)</b>	 Microsoft Word Document
<b>Placement of Defined Patient Transfer (flowchart)</b>	 Microsoft Word Document
<b>ARV crew-mix Guide</b>	 Microsoft Word Document
<b>ARV platform Guide</b>	 Microsoft Excel Worksheet
<b>Victorian Hospitals (map)</b>	Adobe Acrobat Document
<b>Trauma 1800 Advice and Referral Line processes</b>	 Microsoft Word Document