# Urgent care centres: Models of care toolkit

## Rural health urgent care centres

VICTORIA State Government | Health and Human Services

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## Rural health urgent care centres

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*Not working.*
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**Andrea Radley.**

# Introduction

Rural urgent care centres are a key entry point into the Victorian healthcare system for people living in small rural communities. Patients may receive definitive care at a rural urgent care centre, whereby all treatment required at the time is provided (Farlex 2016). In other words, care that meets their clinical needs and is within scope of the clinician and the rural health service is provided. Alternatively their healthcare needs may require referral to their general practitioner or transfer to a higher level of care at a larger health service or a specialist/tertiary metropolitan health service.

All Victorian health services work to improve their coordination of care and to optimise health outcomes for patients through providing safe, efficient and high-quality care. The healthcare system is dynamic and the delivery of health care is responsive to: contemporary expectations and the needs of consumers, patients and carers; improvements and redesign of health service delivery; and the availability and accessibility of the workforce and other key clinical resources.

The *Models of care toolkit* informs the ongoing development of rural urgent care centre models of care and the way health care is delivered in the rural urgent care setting. The models of care are multidisciplinary and multifaceted. All models are required to meet the Victorian Government's performance standards and clinical governance framework, which incorporate both quality and safety standards (Department of Health and Human Services 2015a; Department of Health and Human Services 2017a). To achieve these standards and maintain a responsive healthcare system, communication to the community about what models of care rural urgent care services can safely provide is a requisite.

Regularly reviewing models of care as part of rural health service and regional system planning should enable greater coordination of health care delivery and optimise health outcomes for patients and consumers. This resource will also assist in the review process by providing a description of the current models of care operating in rural urgent care centres and the issues that must be considered when implementing these models in a rural health service setting.

## Context

All Australian public rural health services with acute beds have an emergency care area, equipped to provide first-line emergency care to patients. In Victoria these facilities are known as 'rural urgent care centres'. Although they share attributes with emergency departments in cities and larger towns, they do not provide the same level of emergency care.

Health services have a responsibility to ensure all services provided to patients are safe, appropriate and within the capability and role of the service and its clinicians (Department of Health 2011). That is, the scope of practice of the small rural health service, its clinical resources and/or workforce are sufficient to enable safe clinical emergency care. As rural urgent care centres are typically staffed by nurses and on-call general practitioners, see fewer than 10,000 presentations annually and have a limited ability to perform diagnostic tests such as x-rays and pathology tests, the ability of urgent care centres to provide definitive care is limited.

Rural urgent care centres are expected to undertake initial assessments of patients and initial treatment of any type of presentation. Rural urgent care centres also receive ambulances for definitive treatment, assessment of patient needs or stabilisation before transfer to a larger health service. Where necessary ambulances with critically ill patients will bypass an urgent care centre and go directly to a larger health service. Full assessments and definitive treatment of many patients will fall outside the urgent care centres' scope of practice so will require clinicians to consult and/or the patient to be transferred to a larger health service.

Victoria has 67 rural urgent care centres and 40 emergency departments. Rural urgent care centres account for nine per cent of Victoria's urgent and emergency care presentations. The 67 rural urgent care centres see more than 140,000 presentations per year, with the busiest centres seeing more than 8,000 patients per year and the smallest services seeing around 100 patients per year (Department of Health and Human Services 2017 b and c).

## Rationale

The following section explains why a *Models of care toolkit* for the rural health context is needed. It outlines:

- the evolving differentiation between emergency and urgent care
- meeting the requirement of providing health care within a health service's and clinician's scope of practice
- the aim of providing a continuous journey of health care for the patient through appropriate assessment and provision of definitive care, referral or transfer.

It concludes with an outline of the structure of the models of care.

### Changes in emergency care

Historically the difference between a rural urgent care centre and what would become emergency departments was minimal. They were both called 'casualty wards'. Rural general practitioners worked in rural casualty wards as visiting medical officers and unsupervised junior doctors worked in urban casualty wards. Diagnostic tests were not ordered as commonly as they are now. Urban doctors may have ordered x-rays, but some rural general practitioners performed their own x-rays. Patients requiring admission were seen by general surgeons and general physicians. Rural general practitioners were comfortable treating many general medical ailments and often performed general surgical procedures such as fracture reduction and appendectomies. Relatively few patients were transferred to larger hospitals.

Over the past four decades emergency departments have evolved into a different clinical entity. Patients can now be assessed with a growing array of clinical investigations soon after arrival. On-site specialists ensure expert input in most cases. Emergency departments have become one-stop shops, attracting work that was previously performed in hospital wards or in the community. Rural urgent care centres see the same types of patient presentations but lack direct access to this clinical specialist workforce and resources.

As all health services must ensure healthcare services provided to patients are safe, appropriate and within the capability and role of the service, a rural urgent care centre's models of care are limited by the access and availability of a clinical specialist workforce and diagnostic resources.

### The patient journey

The Victorian healthcare system focuses on providing person and family centred care that is timely, appropriate and effective. Person and family centred care is responsive to individual differences, cultural diversity and the preferences of people receiving care. It is supported by information, systems and services that meet patient, consumer and, where appropriate, carer needs (Department of Health and Human Services 2016).

Rural urgent care centres are a front door to the Victorian healthcare system for people living in small rural communities. People present to an urgent care centre when they believe they have an issue that requires immediate attention. Ideally as many consumers as possible will be able to obtain definitive care at their local community rural health

service. They can either be discharged directly from the urgent care centre or may need to be admitted to the inpatient ward. Research has found that rural urgent care centres see virtually all categories of emergency presentations, treat critically ill and injured patients and perform most procedures. Patient presentation types at rural urgent care centres therefore are very similar to those at emergency departments, with the most common presenting illnesses arriving at a rural urgent care centre being single site injury, digestive system illness and respiratory illnesses (Baker & Dawson 2014).

Innovations that increase the number of conditions that can be safely clinically managed locally improve the delivery of care to a patient because the patient does not need to attend multiple institutions and possibly travel by ambulance during his or her episode of care. Following an initial assessment a patient with a serious illness that requires further assessment or definitive treatment that is outside the scope of practice of the rural health service and the attending clinician should be able to travel or access by telehealth the health resources they need. Correspondingly, a clinician in a rural urgent care centre should be able to access specialist advice quickly and easily to enable safe patient transfer if required.

### Assessing and monitoring patients

A patient should be assessed quickly to determine if they are unstable and require immediate treatment. The clinician performing the assessment would ideally be trained in using the Australasian Triage Scale (ATS) and have training and experience in recognising red flags for serious illness. Some aspects of the ATS help identify serious illness, but the scale was primarily developed at large emergency departments to determine the order in which patients should be seen. This is of less relevance in a rural urgent care centre where simultaneous patient presentations are less common. It is important to remember that the ATS is a measure of 'how urgently' the patient should be seen. It is not a measure of patient condition complexity, or how likely the patient is to die or suffer serious consequences. For this reason, the ATS should not be used alone to decide whether a patient needs to see a more experienced clinician. Category 4 on the ATS, in particular, contains patients with serious illnesses presenting in an early stage when specific treatment could be most effective. All triage staff should consider asking for advice whenever symptoms continue and the diagnosis is uncertain.

For paediatric patients the Victorian Children's Tool for Observation and Response (ViCTOR) urgent care charts should be used in a rural urgent care centre. This is a set of five age-specific standardised track-and-trigger paediatric observation and response charts that the Victorian Paediatric Clinical Network piloted, evaluated and modified in rural urgent care centres in 2015. These charts mandate a response by the clinician once the patient's observations deteriorate to a designated zone. They are the current best evidence of paediatric centile ranges for escalation of care. The guidelines and resources are available via the ViCTOR website at <www.victor.org.au>.

Clinicians working in rural urgent care centres who undertake these assessments and monitoring include: rural isolated practice endorsed registered nurses (RIPERNs), nurse practitioners, registered nurses (RNs), junior doctors, primary care physicians, general practitioner proceduralist and, in some rare cases, emergency physicians or trainees. Who health services employ depends on a clinician's credentials and the scope of practice that
is appropriate for that health service. All clinicians should be equally confident within their scope of practice and ask for help when they are uncertain of a patient's diagnosis or best management plan. Clinicians with more training will need to ask for advice less often, but all clinicians need to ask for advice regularly. Knowing when to ask for help is a sign of mature practice.

### Providing definitive care, appropriate referral or safe transfer

Providing definitive care and the completion of recommended treatment at a rural urgent care centre is not always possible. The patient's healthcare needs may exceed the clinician's and/or the rural health service's scope of practice and require the patient to be referred to their general practitioner or transferred to a higher level of care at a larger health service or a specialist/tertiary metropolitan health service.

Critically ill and unstable patients may arrive at rural urgent care centres. Those with a serious illness outside the scope of practice of the clinician and/or the health service must be stabilised as much as possible and then transferred to a larger centre. Having communication and transfer protocols in place with Ambulance Victoria, larger health services and the adult and paediatric emergency retrieval services allows clinical consultation and efficient and safe patient transfers to occur if required.

Adult Retrieval Victoria (ARV) is part of Ambulance Victoria and provides statewide clinical consultation for critical patients and will manage retrieval processes if clinically appropriate for adults (Ambulance Victoria 2016). ARV manages the Retrieval and Critical Health (REACH) system, which includes information about Victorian health services' resources and capabilities. This supports ARV's ability to provide clinical advice to rural and regional clinicians managing unwell patients or those with time-critical issues and to coordinate patient retrievals when necessary (see the REACH portal at <https://reach.vic.gov.au/#/portal/home>). Health services need to register with ARV to gain access to the system to input and update information about their health service. For more information refer to the ARV website at < www.ambulance.vic.gov.au/about-us/our-services/adult-retrieval-victoria/>.

The Paediatric Infant Perinatal Emergency Retrieval (PIPER) service, based at the Royal Children's Hospital, provides 24-hour support and advice to clinicians managing critically ill children, infants and pregnant women. PIPER will also arrange a patient's retrieval to a more appropriate health service for care if required. First contact is made by telephone, and advice on how best to care for the patient is given, and appropriate transport arranged if needed (Royal Children's Hospital 2016). For more information refer to the PIPER website at <www.rch.org.au/piper/>.

## Rural and regional health partnerships

Rural urgent care centres do not have the resources and capacity to treat all emergency presentations by themselves. Emergency care clinical support and advice to rural urgent care centre clinicians is provided by local general practitioners, other health services in the area, the statewide specialist services, retrieval services and Ambulance Victoria.

There is a long history of collaborations and partnerships between health services in rural and regional Victoria to provide safe high quality patient care. The Department of Health and Human Services is working with rural and regional health services to promote partnerships and develop formalised arrangements between health services. These health partnerships will include all aspects of care, including emergency care.

The strengthening of health service partnership arrangements are a local creative and innovative approach to support rural urgent care centre staff, ensure quality care to the community and clarify the patient journey. Partnerships improve the systems of communication between rural health services and allow for more consistent, high-quality and safe clinical care to be delivered to rural and regional communities.

All health services have a role to play, with collaborations of health services across a catchment. As the health service with the highest level capability, the regional or larger health service is expected to take a leadership role in the health partnership for a given area. These arrangements are seeking to formalise existing relationships and provide opportunities to better meet local health care needs.

Health partnerships with the aim of ensuring the delivery of safe and effective care to communities are beneficial to all participants. Rural health services gain access to clinical and operational support from leadership health services that can also provide oversight for quality and safety initiatives. Lead health services are better able to manage referral processes for timely care, patient returns and ongoing care through having greater understanding and knowledge of partner health services' capabilities and resources in their partnership area.

Health partnerships can incorporate mentoring and education support for staff. This includes clinical staff from partnership health services accessing education and professional development sessions at the lead health service and opportunities to join the roster at the lead health service. Reciprocal arrangements can engage staff from the lead health service working in partner health services. This will build understanding of each health service's roles and capabilities across the partnership area, foster collaboration and enhance the leadership of senior clinicians.

A partnership approach to workforce management can support planning, innovative recruitment, professional training and development and succession planning.

## Models of care structure

In this toolkit the models of care are described in two sections. Section 1, Workforce models, describes clinician types and the skills they bring to rural urgent care centres. Each model is introduced using a diagram depicting how it works in practice. Section 2, Infrastructure and support models, focuses on systems that allow access to clinical specialist care in the rural urgent care setting. To facilitate a review of the models and critical consideration of implementation at a rural health service each model is presented under the following key sections.

### What is the model?

This section gives an overview of the model. For Workforce models the skills and training of the key clinician type and what their scope of practice at a rural urgent care centre might encompass. For Infrastructure and support models where a resource that enables access to a clinician type is described, the key innovation and its intended impacts are outlined.

### Why use the model?

This section describes circumstances that rural urgent care centres may face. It describes how the model addresses these and outlines the improvements to patient care that can be achieved. It may describe specific issues you recognise in your own health service, and provide an option for addressing them. This section also details where the model aligns with quality and safety requirements, including the National Safety and Quality Health Service Standards (Australian Commission on Safety and Quality in Health Care 2012).

### Key principles

This section outlines the most important elements of the system. Unless these elements are understood and adhered to, there is a high likelihood that the model will not function as planned. It is important that you understand these principles before attempting to implement the model.

### Benefits for stakeholders

This section outlines how patients, rural communities and other stakeholders may benefit from the model. Use this to engage with stakeholders in your health service, within your rural and regional health partnership and with your community.

### Challenges

This section describes the potential barriers to implementation of the model, as well as the actual issues that have arisen when the model has been implemented elsewhere. Use this to learn from others and anticipate issues before they arise.

### Case for implementation

This section describes the factors that might motivate clinical and executive leaders to undertake the implementation of the model. Use this information to make the case for change.

### What you need to implement the model

This section describes the elements that must be in place for the model to be introduced. Without these foundations, the implementation will be very difficult or impossible. Use this information to assess the readiness of your health service to implement the model.

### Monitoring measures

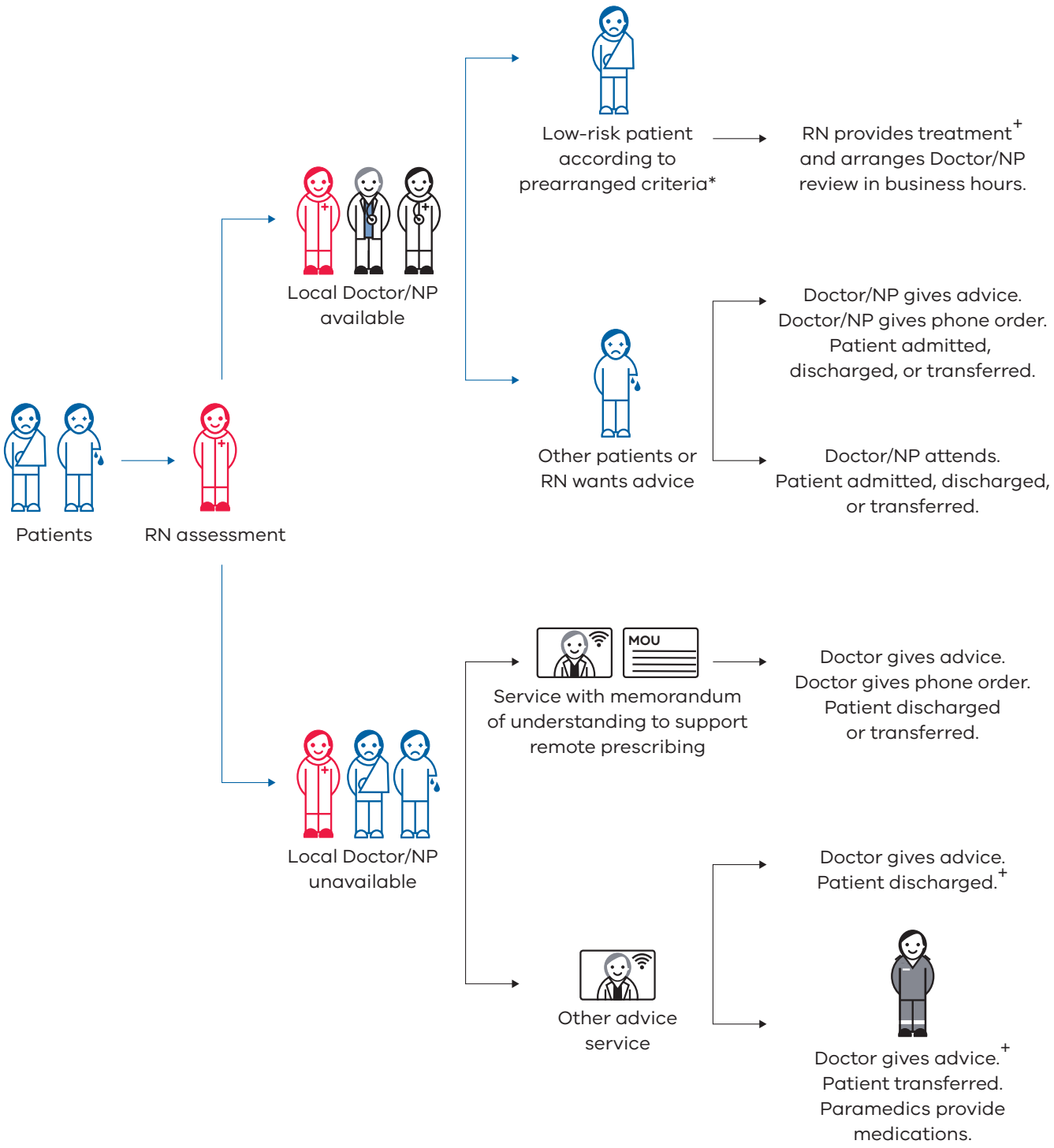
This section outlines parameters that should be monitored as the model is introduced. Monitoring these parameters allows you to assess how well the model is performing, and what may need to be altered. It is important to be mindful that monitoring and audit processes put in place do not over burden staff.

### More information

This section summarises the references and websites referred to under the outline of the model or the infrastructure and support system.

# Section 1: Workforce models

# Registered nurse-led care




+ *Limited prescribing possible, if standing orders in place.*
* *Use sparingly. Based on complexity, not just triage category. RN may still seek advice if concerned.*

# Registered nurse-led care

## What is the model?

Most smaller rural health services do not employ doctors in their urgent care centre. A general practitioner may be on call to provide advice or attend to a patient in the urgent care centre when requested by nursing staff. In some health services, RNs may be based in the urgent care centre; however, in the majority of health services, the RN attends the urgent care centre from their role on the acute or aged care wards when a patient presents to the urgent care centre requiring assistance. These RNs are frequently the most senior nurse on duty with a number of years' experience.

When a patient presents at the urgent care centre they are assessed and triaged by an RN who will then commence treatment, contact a medical practitioner and initiate transfer for patients requiring a higher level of care. As well as conducting a thorough assessment, the urgency and acuity of the patient is assessed to ensure the level of care provided is appropriate and timely. This may involve communication with local general practitioners, regional health services, Ambulance Victoria and/or a retrieval service such as ARV.

Many RNs have completed continuing professional development for emergency care, and working in a rural setting broadens their experience and skills in dealing with a range of issues. All RNs undertaking this role will have Advanced Life Support (ALS) skills as well as triage education as a minimum.

## Why use the model?

RNs are a key resource for rural health services. They are the largest group of health clinicians in rural areas and in most services. They are often the most stable workforce and may stay with an organisation much longer than doctors do.

The RN model is the base model for rural health service's urgent care centres. Almost all the subsequent models build on the RN-led model. Even when other health practitioners are available, the RN is a constant and can provide firstline care.

When it proves impossible to obtain 24/7 cover by other locally based health practitioners, RNs can, with appropriately arranged support and protocols, continue to provide a quality service.

## Key principles

Health service protocols must ensure RNs have a prearranged support system for complex cases; preferably this will be with a locally based general practitioner. If the RN is the only locally available health professional, there must be a prearranged reliable system of telephone or videoconference telehealth.

Health service protocols must ensure clear escalation processes when required to respond to deteriorating patients.

The RN needs to be the most experienced on duty and have ALS skills, patient assessment and triage education.

Standing orders[1] and/or nurse-initiated medication policies must be in place.

## Benefits of the model

RNs are the most stable workforce group at rural hospitals. This brings many benefits for stakeholders.

- They are likely to be the most knowledgeable about hospital resources and processes.
- They are likely to be the most knowledgeable about regional resources and transfer pathways.
- They are likely to have stable and collaborative relationships with local doctors and other local clinicians.
- They are likely to have the best understanding of the local community and how that impacts on patient care.
- The community is able to access firstline emergency care at any rural public health service at no cost.

## Challenges

RNs must receive training to maintain their emergency care/ALS certification.

Work load requirements must be balanced when the RN is rostered on the ward to care for inpatients and is then required to attend an urgent care centre patient.

Prescribing is difficult if no local doctor is available. A memorandum of understanding may be required with a regional health service to best utilise telehealth support from the service's doctors.

Safety and security can be an issue for RNs when attending an urgent care centre that is located away from inpatient areas.

1 Standing orders are presently under review and may be replaced with an alternative regulatory mechanism.

## Case for implementation

- Difficulty sustaining general practitioner services in the urgent care centre.
- Availability and skills of the RN workforce.
- Geographical isolation.

## What you need to implement the model

- RNs with appropriate emergency care training and experience.
- Clear hospital standing orders and escalation protocols for deteriorating patients.
- A negotiated agreement with local general practitioners.
- Larger health services willing to respond to requests for advice and assistance from the urgent care centre.
- If local general practitioners are unavailable, a memorandum of understanding with a regional health service to allow their clinicians to remotely prescribe medications to be administered by the RN.
- Notification of changes to staffing arrangements to Ambulance Victoria and surrounding referral centres (this can be done by using the Ambulance Victoria REACH system).
- Clear communication with the community:
  - that they will be assessed by an RN
  - about the circumstances and costs, if any, of seeing a local general practitioner in the urgent care centre
  - about the costs associated with an Ambulance Victoria transfer if the patient is not a subscriber or healthcare card holder or pensioner.

## Monitoring measures

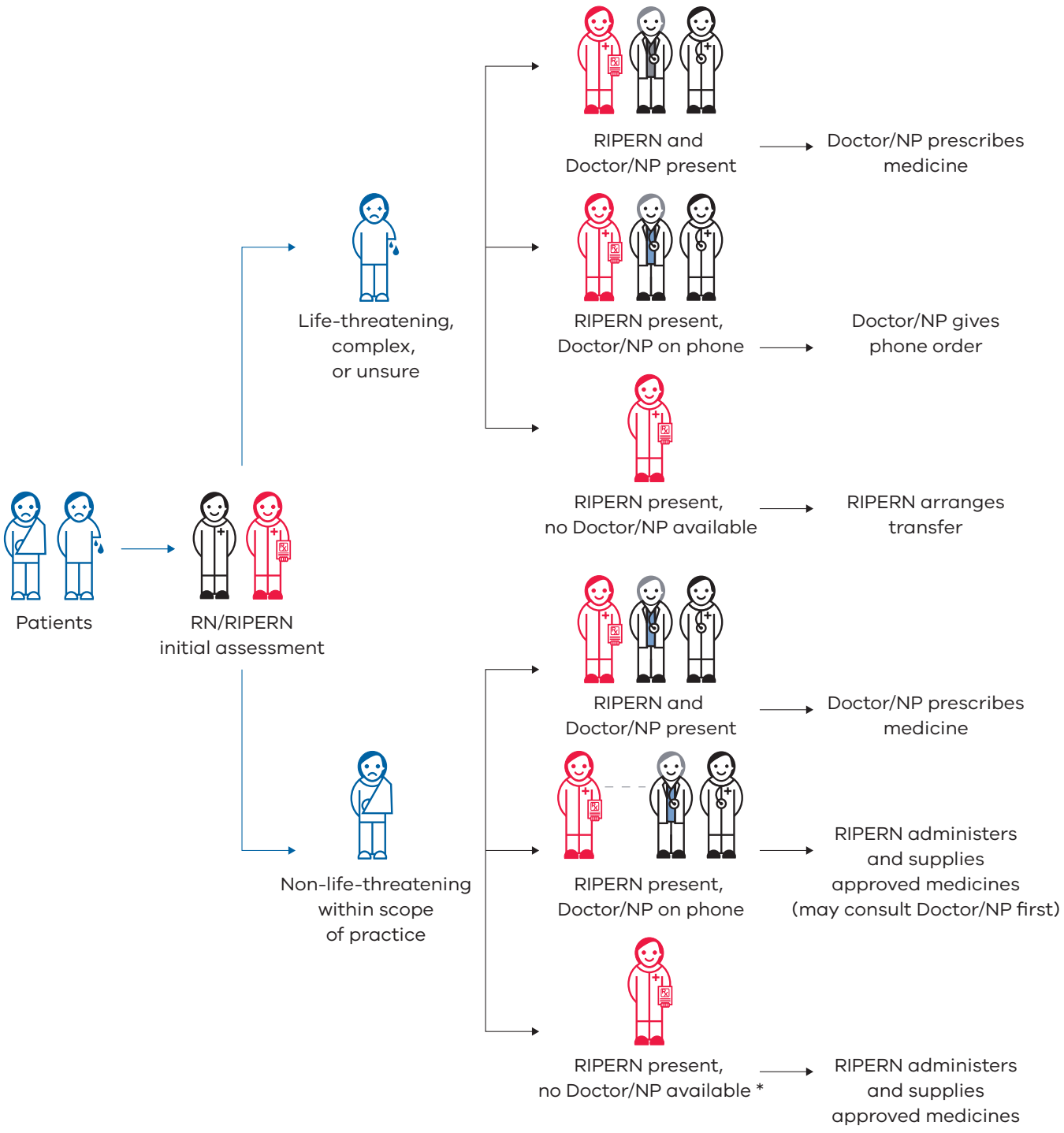
Monitoring and audit should include:

- patient numbers, triage category and disposition (admitted, discharged, transferred, deceased)
- reviews of health outcomes, critical incidents, morbidity and mortality and input to the Victorian Health Incident Management System
- patient feedback and complaints
- staff satisfaction
- use of telehealth and support services.

## More information

For more information about RNs, refer to the department's website at <https://www2.health.vic.gov.au/health-workforce>.

# Rural isolated practice endorsed registered nurse (RIPERN)




* *This means either that there is no Doctor/NP available at all locally, or they have negotiated that phone contact is not necessary for this type of patient at this time.*

# RIPERN

## What is the model?

RIPERNs are RNs who undertake postgraduate study to expand their clinical capabilities and scope of practice in emergency and primary health care. RIPERNs can administer and supply common medications (such as analgesics, antiemetics and antibiotics) to patients with non-life-threatening problems when a doctor is not immediately available. They are also trained to assess and treat many common emergency presentations using guidelines approved by experts.

In Victoria the RIPERN role was first piloted in 2007–08. Evaluation of the pilot found that the RIPERN role provides safe and effective care for patients and operates most effectively as part of a collaborative practice model. In 2010 the Victorian Government amended the *Drugs, Poisons and Controlled Substances Act 1981* < http://www.legislation.vic.gov.au/domino/Web_Notes/LDMS/LTObject_Store/LTObjSt5.nsf/0/652e75ad1b785534ca257789000756c4/$FILE/81-9719a091.pdf> to authorise, under certain conditions, RNs who are endorsed as being suitably qualified by the Nursing and Midwifery Board of Australia to obtain, supply and administer poisons. The endorsement is formally called 'Scheduled Medicines (Rural and Isolated Practice) Endorsement'. The government formally authorises rural health services to implement the RIPERN role through a gazettal notice to the *Drugs, Poisons and Controlled Substances Act 1981*.

RIPERNs' advanced skills and capabilities allow rural health services to improve patients' access to timely, safe and appropriate care when they present to a rural urgent care centre. For life-threatening and complex issues, RIPERNs will consult with other clinicians such as general practitioners and clinicians at larger health services. For patients presenting with issues within their scope of practice, RIPERNs may consult with other clinicians, or treat independently (including supplying and administering medications) based on the approved *Primary clinical care manual* (Queensland Health and the Royal Flying Doctor Service 2016). An outline of the model in Victoria and extensive implementation resources can be found at the Department of Health and Human Services website at <https://www2.health.vic.gov.au/hospitals-and-health-services/rural-health/rural-endorsed-nurse/ripern-roles>.

## Why use the model?

- RIPERN nurses use best practice guidelines, have advanced assessment skills, and are better equipped to communicate assessment findings to other clinicians.
- Patient-centred care is enhanced. The RIPERN role improves a health service's ability to provide timely, safe and appropriate care to patients who present at an urgent care centre when a doctor is not present or unable to attend the hospital.
- It allows efficient and sustainable use of general practitioners. Traditionally, prescription of medicines required the attendance of a general practitioner. Many urgent care centre patients require common medications for non-life-threatening problems. RIPERNs are able to assess, treat, administer and supply these medications as appropriate.
- The RIPERN role can enhance patient flow by providing timely assessment and treatment for patients so they do not have to wait for a doctor to attend the urgent care centre.
- It demonstrates compliance with the National Safety and Quality Health Service Standards (Australian Commission on Safety and Quality in Health Care 2012). Developing the protocols to implement the program and negotiating with the community demonstrate aspects of *Standard 1: Governance for safety and quality in health service organisations* and *Standard 2: Partnering with consumers*. Employing RIPERNs demonstrates aspects of *Standard 4: Medication safety* and *Standard 9: Recognising and responding to clinical deterioration in acute health care*.

## Key principles

- Nurses undertake a formal program of study accredited by the Australian Nursing and Midwifery Council and are endorsed by the Nursing and Midwifery Board of Australia.
- Nurses supply and administer a selection of medicines approved by the Victorian Minister for Health under the gazettal notice to the *Drugs, Poisons and Controlled Substances Act 1981*.
- Nurses operate in accordance with the *Primary clinical care manual* (Queensland Health and the Royal Flying Doctor Service 2016), which contains evidence-based clinical guidelines and health management protocols, and is reviewed every two years.
- Hospitals adopt a collaborative practice model where clinicians demonstrate mutual respect and negotiate their roles based on their skills and availability in a multidisciplinary approach.
- Hospitals revise organisational policies to support nurses to independently manage more patients who present with non-life-threatening or primary care problems.

## Benefits of the model

- Enhances rural hospitals' delivery of safe, person and family centred care. Patients have many of their low-acuity problems competently treated with one visit, quickly, and close to home.
- Increased confidence and work satisfaction for the RIPERN through application of advanced skills and training. RNs feel better supported.
- Provides local RNs with more rural nursing career options.
- Reduces the number of on-call services provided by general practitioners, improving their work/life balance.
- The experience of the collaborative practice framework has led to the development of a more flexible workforce, which is less reliant on one critical component such as the attendance of a general practitioner and therefore less prone to crisis. It is more supportive of multidisciplinary practice.

## Challenges

- Changing established systems can be difficult. Creating a collaborative practice model requires executive leadership and a strong commitment to building effective relationships with all stakeholders, particularly local general practitioners.
- There is a need to inform and educate health service staff, local general practitioners, staff at referral hospitals, the ambulance service and the community that the new model of care does not lead to reduced outcomes for patients.
- The time a RIPERN spends assessing and treating unplanned presentations may impact on inpatient workloads if they are not solely designated to the urgent care area.
- There are minimal financial costs. These relate to funding the training program and tuition fees, and the qualification allowance associated with the RIPERN endorsement (approximately four per cent unless the nurse is already claiming such an allowance). Note, the 2014 evaluation of the program did not find any substantial increase in financial costs to rural health services that implemented the RIPERN model (Department of Health 2015b).

## Case for implementation

The case for change could be built around the following:

- The challenges sustaining general practitioner services at rural health services. This could be demonstrated by gaps in the roster, high locum doctor costs, comments from general practitioners that they are being overwhelmed or feedback from the nursing staff that they are finding it difficult to have general practitioners see unplanned presentations in a timely manner due to competing patient commitments.
- Many patients attending the service fall within the RIPERN scope of practice. This could be demonstrated by a high proportion of low-acuity or primary care problems, a high proportion of patients being discharged on common medications such as antiemetics, analgesics or antibiotics, and a low rate of hospital admission or transfer.

This information could be obtained through discussions with stakeholders and an audit of unplanned presentations. The *Nurse endorsed tool kit 2012* (Department of Health 2012) available at <https://www2.health.vic.gov.au/hospitals-and-health-services/rural-health/rural-endorsed-nurse/ripern-roles> includes a guide for assessing the potential role for a RIPERN through a clear self-audit of the service and by identifying gaps and strategies to fill these gaps through the RIPERN function.

## What you need to implement the model

The Department of Health and Human Services' RIPERN website at <https://www2.health.vic.gov.au/hospitals-and-health-services/rural-health/rural-endorsed-nurse/ripern-roles> has a range of resources including a locally adaptable communication strategy.

The following needs and issues can begin to be addressed and worked through:

- leadership and support from the chief executive officer and senior executives
- a project team, including a project facilitator or manager
- guidelines supporting change management and decision making
- a negotiated agreement with local general practitioners and community pharmacists
- a clinical governance framework that accommodates the RIPERN model including policies, procedures and position descriptions, a clinical review process, clearly articulated roles and responsibilities and patient pathways
- the ability to capture data on unplanned urgent care centre presentations
- communication with Ambulance Victoria and surrounding hospitals
- a critical mass of interested RNs (the aim of most services is to have a RIPERN on every shift).

## Monitoring mesures

Monitoring and audit should include:

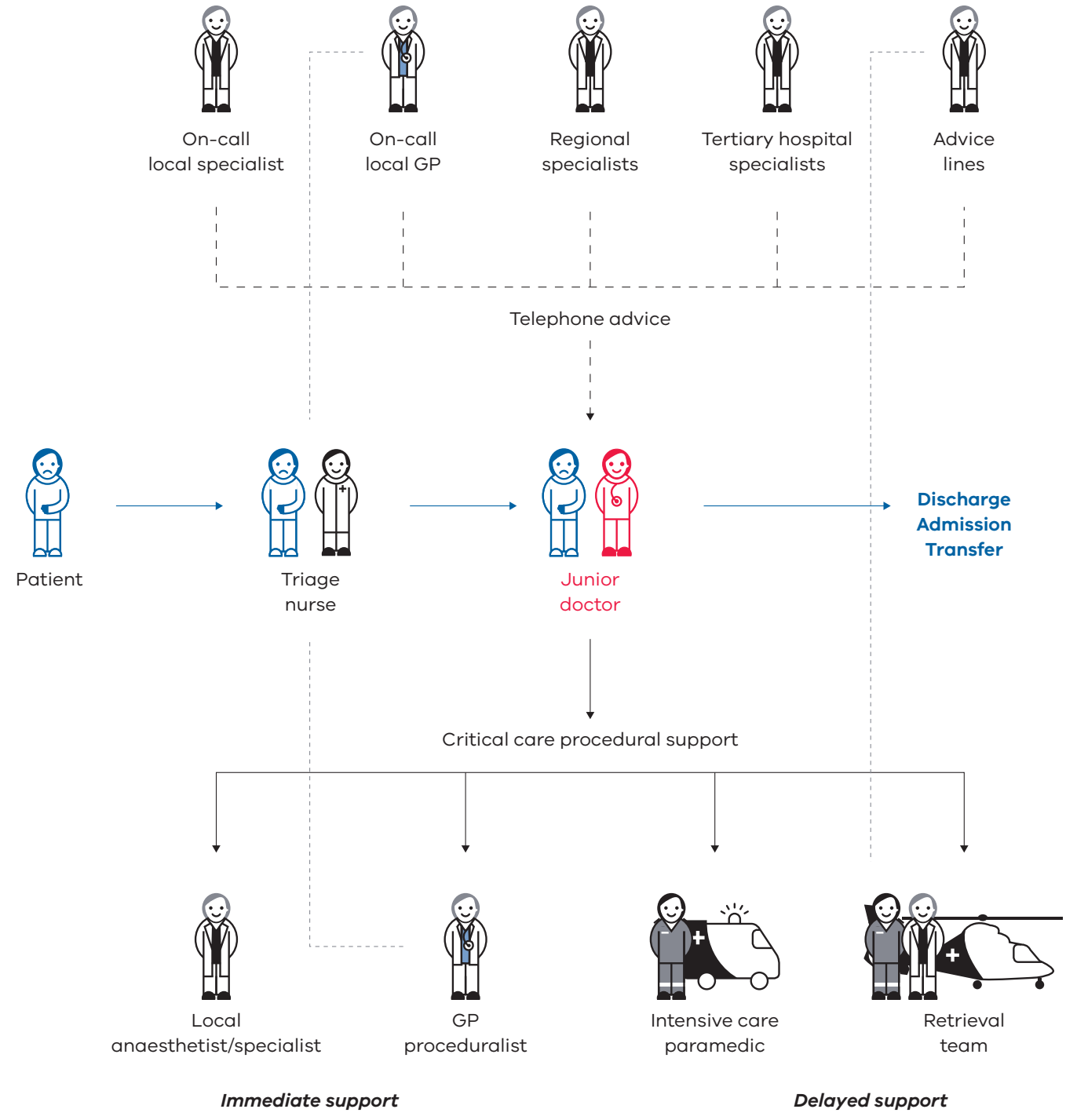
- patient numbers, triage category, length of stay and disposition (admitted, discharged, transferred, deceased)
- reviews of health outcomes, critical incidents, morbidity and mortality and input to the Victorian Health Incident Management System
- the percentage of patients seen by a doctor, the percentage seen by the RIPERN and the percentage seen by non-endorsed nurses
- medications administered and supplied by the RIPERN
- staff satisfaction
- patient feedback and complaints.

## More information

For more information about RIPERNs, refer to the department's website at <https://www2.health.vic.gov.au/hospitals-and-health-services/rural-health/rural-endorsed-nurse/ripern-roles>. Resources include:

- *Nurse endorsement policy framework 2012*, Department of Health
- *Nurse endorsed tool kit 2012*, Department of Health
- communication tools.

# Junior doctors




- - - - *May be same person.*

# Junior doctors

## What is the model?

A rural health service may employ junior doctors to work in the rural urgent care centre. These doctors may cover all shifts or just some shifts depending on their level of skill and supervisory requirements. They may or may not perform work on the hospital wards during the same shifts. Some shifts, especially overnight shifts, may be worked on an on-call basis.

This is the model used at most Australian metropolitan and larger regional emergency departments. In these locations, junior doctors are usually supported by on-site senior doctors, including emergency medicine specialists. Rural medical schools are increasing the number of available junior doctors, but currently only the largest rural urgent care centres use this model.

Junior doctors work closely with nursing staff who can assist in local protocols and procedures. Whilst junior doctors have advanced history-taking and examination skills and a thorough knowledge of medical theory, they discuss complex cases with senior doctors to form a management plan. They are not able to perform critical care procedures such as intubation. A rural hospital must understand the limitations to a junior doctor's scope of practice and level of skill. Senior staff and clinical management protocols must be in place for treating higher acuity or deteriorating patients.

When considering engaging a junior doctor, a rural health service needs to address a wide range of recruitment and employment issues to present a well-considered package to prospective candidates. This would include supervision and support, mentoring and peer networking, education and training opportunities as well as promoting the rural lifestyle and family benefits such as childcare, education and recreational pursuits.

## Why use the model?

In a rural area with a growing population, the number of presentations to the rural urgent care centre can exceed the capability of local general practitioners to easily cover all attendances. Junior doctors can treat many problems independently, or with short telephone consultations, decreasing the load on general practitioners.

In a rural area with an ageing population, the number of patients presenting with complex or multiple problems is likely to increase, especially if there is no nearby regional centre. If the hospital also has some on-site diagnostic pathology or medical imaging, regional and tertiary hospitals may expect the patients to have had several hours of investigations before they will accept them. General practitioners struggle to spend several hours away from their busy clinics with such patients. With this model general practitioners can make the decisions while junior doctors arrange the investigations, complete the paperwork, make the telephone referrals and perform minor procedures.

In more remote areas, where retrieval services may take many hours to arrive, a general practitioner's practice work may be significantly interrupted as they may need to spend many hours caring for a single patient at the health service.

Also, junior doctors can be made available for other health service duties such as reviewing ward patients or supporting community services.

## Key principles

- The rural health service directly employs and pays junior doctors.
- A formal supervision and support system is required for junior doctors.
- Separate arrangements are required for critical care procedures.

## Benefits of the model

- The workload of general practitioners is decreased, which may enable them to continue an association with the local health service and have a better work/life balance.
- Nurses don't have to interrupt busy general practitioners to order investigations, perform minor procedures or prescribe medications.
- If doctors are rotated from nearby regional health services, links with regional services can be strengthened.
- Junior doctors attracted to the town for work may be more likely to train as general practitioner proceduralists or to return to the town as general practitioners.

## Challenges

To continue the provision of emergency medical services, the two main challenges are cost and supervision.

### Cost

Victorian small rural health services receive block funding to cover the costs of clinical and ancillary staff, consumables and maintenance of the equipment and facility. General practitioners as visiting medical officers are reimbursed by Medicare. They may choose to choose to bill patients directly and will receive payment from the hospital if they participate in the on-call roster for emergency presentations. The salary costs of junior doctors must be paid by the rural health service or as agreed under a shared appointment.

One option is to use junior doctors who are participating in an accredited training program such as general practitioner proceduralist training or emergency medicine training. There may be state and Commonwealth workforce grants that may contribute to the costs of a trainee's wages, or contribute to the cost of a senior staff member from a regional hospital to visit the rural health service to provide supervision and training. One example is for a rural health service to provide access for regional hospital trainees to receive anaesthetic experience during theatre lists at the small rural hospital. Anaesthetic experience is vital for a number of training programs, and there are often more trainees than can be accommodated by the regional hospital.

### Supervision

Doctors in their first few years of training, or moving to Australia after training and experience elsewhere, will require a level of supervision determined on a case by case basis according to their level of skill. Accredited training places often have strict supervision requirements which are determined by the relevant specialist colleges. This can be addressed in several ways. Hospitals large enough to employ a physician, surgeon or anaesthetist have a ready-made system, although mechanisms to cope with gaps in the roster will need to be considered. Local general practitioners may be willing to provide support, but a system to reimburse them for being on-call and working when required will have to be arranged. Regional emergency departments may be equipped to provide support by telephone or telehealth, especially if their trainees are the junior doctors in the rural urgent care centre. However, telephone and telehealth support cannot help when a procedure such as intubation is required. This may require separate arrangements with Ambulance Victoria if an on-call specialist anaesthetist or general practitioner anaesthetist is unavailable. The Postgraduate Medical Council of Victoria audits placements for junior doctors in training including the level of support and supervision provided.

### Other challenges

Further challenges include:

- recruitment of sufficiently experienced junior doctors (a minimum of three years' postgraduate experience is desirable)
- mechanisms to ensure that rural general practitioners are informed promptly when one of their patients has been treated, admitted or transferred. A robust and effective communication system is required.

## Case for implementation

The main case for implementation of a junior doctor model is an inability to maintain general practice cover of a rural urgent care centre. This can be indicated by:

- frequent gaps in the general practice roster
- general practitioners withdrawing from the on-call roster
- seriously ill or injured patients attending the rural urgent care centre and then being transferred to another hospital as the medical attention required cannot be provided due to roster gaps
- the demands placed on ambulance resources to cope with frequent transfers to regional centres while still maintaining local ambulance coverage
- adverse patient outcomes from delayed emergency management
- limited local availability of critical care paramedics to provide emergency treatment.

This situation is most likely to arise in a service seeing more than 8,000 emergency presentations annually. At this level of attendance, the emergency work significantly interrupts the work of local general practitioners.

## What you need to implement the model

- Arrangements to offset salary and supervision costs
- A human resources manager trained in recruitment, registration and support of junior doctors (they will also need to understand medical registration, Medicare billing requirements and visa requirements if international medical graduates are employed)
- Arrangements to provide supervision for complex cases with local staff or by telehealth
- Arrangements to provide critical care procedures
- An agreement with local general practitioners about changes to practise and documentation – this is particularly important if general practitioners are part of the supervision or on-call roster

## Monitoring measures

Costs need to be monitored. Junior doctors require support and supervision when deciding to order a range of diagnostic tests and to determine the necessity of transferring a patient.

As this is likely to be a major change to a system that has remained unchanged for many years, staff attitudes and ideas must be given a forum for expression. Regular meetings involving nursing staff, junior doctors, general practitioners, hospital administration and ambulance staff may resolve concerns. Outside support from a regional emergency specialist or an appropriate general practitioner proceduralist may assist.

The sustainability of the system can be evaluated by:

- the number and type of emergency patients seen
- the patients seen and treated within recommended times for each triage category
- the number and type of patients having appropriate local care
- patient feedback and complaints
- staff satisfaction
- gaps in the medical roster
- reviews of health outcomes, critical incidents, morbidity and mortality and input to the Victorian Health Incident Management System.

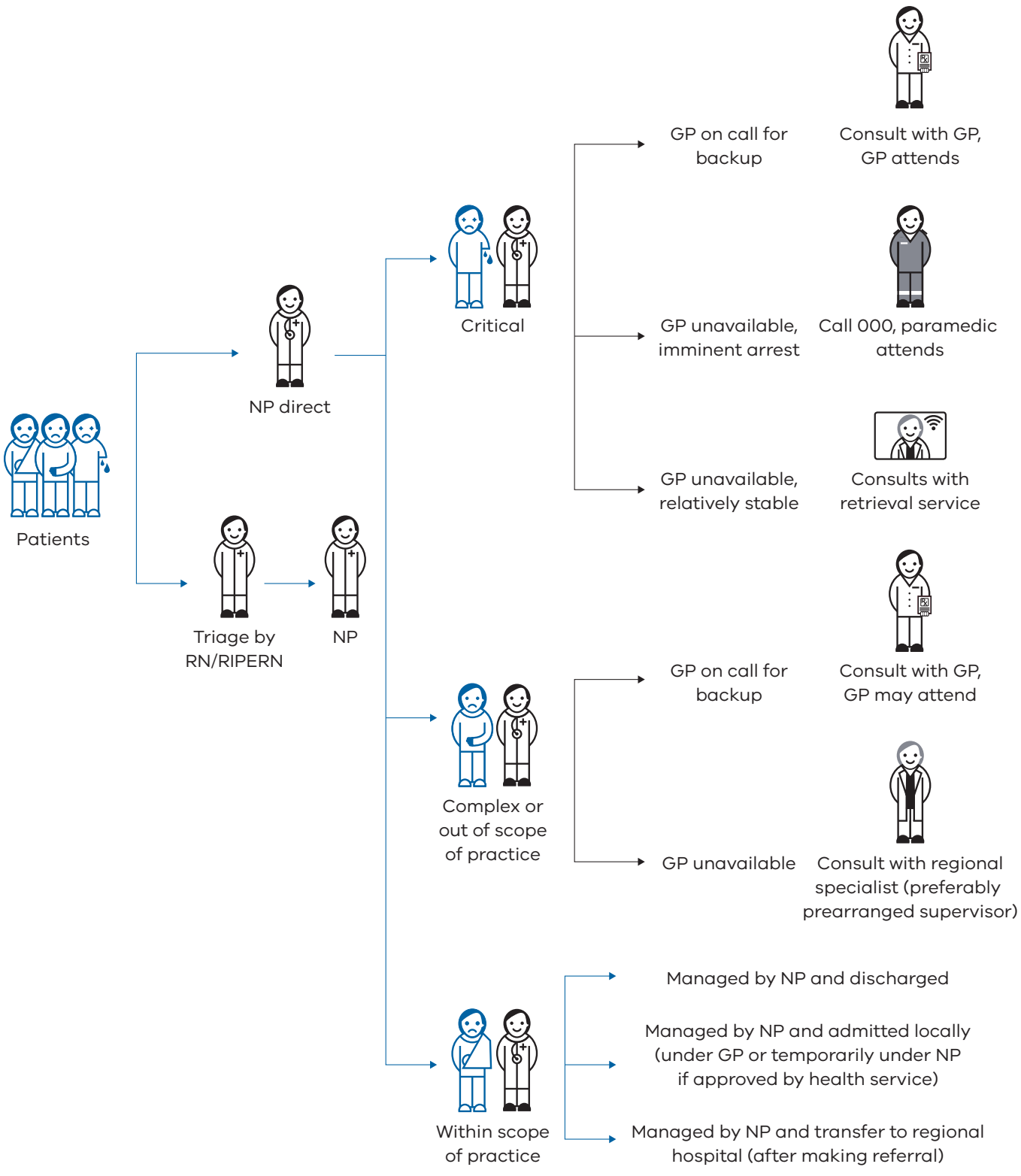
## More information

For more information about the junior doctor model, contact the Victorian Hospitals Industrial Association.

Phone: (03) 9861 4000

Website: <www.vhia.com.au>

# Nurse practitioners



# Nurse practitioners

## What is the model?

A nurse practitioner is a RN educated and authorised to function autonomously and collaboratively in an advanced and extended clinical role.

Nurse practitioner is the highest clinical designation in nursing. A nurse practitioner must be an RN with at least five years of clinical experience to enter the training program. They then complete a specialist nurse practitioner master's degree. To become endorsed as a nurse practitioner with the Australian Health Practitioners Regulation Agency (AHPRA) a candidate must demonstrate 5,000 hours of clinical practice in an advanced nursing role.

Nurse practitioners assess and manage patients, prescribe medications, order diagnostic investigations and directly refer patients to other healthcare professionals. Although nurse practitioners working in urgent care centres have proven particularly effective at managing minor illness and injury, their scope of practice is flexible and not limited to particular groups of patients, or types of illness. Nurse practitioners are responsible and accountable for making professional judgements about when a patient's condition is beyond their scope of practice and for initiating consultation with other health professionals.

In Victoria nurse practitioners have a notation on their registration that is tied to a specific drug formulary from which they can prescribe and dispense medications. Nurse practitioners can apply to have access to more than one formulary.

Nurse practitioners currently work in many hospitals in Victoria, including metropolitan and regional emergency departments and rural health service urgent care centres. Their scope of practice is particular to the individual's practice setting. It is incumbent on individual nurse practitioners to ensure they have the knowledge and skill to safely and effectively provide this care.

## Why use the model?

- It provides flexibility to the rural emergency workforce. Nurse practitioners can provide emergency care with on-site doctors to decrease waiting time for patients, particularly for patients not requiring hospital admission. They can work in urgent care centres during business hours to allow patients to be seen efficiently without waiting for the general practitioner to leave their practice and attend the hospital. They can also work on the after-hours roster when general practitioners cannot be sourced, or to reduce the on-call load for general practitioners.
- It strengthens emergency medicine care and processes within a rural health service. Where most other clinicians at rural hospitals are generalists, nurse practitioners working in emergency care are specialists. This focus allows them to specifically train and update their knowledge of current emergency practice. They have specific training in recognising and managing deteriorating patients, recognising clinical red flags, and in resuscitation.
- It improves linkages with regional and statewide resources. Nurse practitioners working in emergency care are trained in emergency care systems including inter-hospital transport and accessing specialty advice. Many nurse practitioners work in both large and small emergency facilities in a region, facilitating linkages.

## Key principles

- The training of nurse practitioners is advanced and grounded in the nursing profession's values, knowledge, theories and practice.
- Nurse practitioners align their practice with the *Nurse Practitioner Standards of Practice (2014)* (Nurse and Midwifery Board 2017).
- Nurse practitioners working in emergency care can independently assess and manage urgent care centre patients.
- Nurse practitioners working in emergency care prescribe a wide range of medications from specific drug formularies. They may give a written order on the medication sheet to another nurse to administer that drug. Nurse practitioners have access to the Pharmaceutical Benefits Scheme and their prescriber number must be written on all prescriptions.

## Benefits of the model

- Nurse practitioners are another career pathway for rural nurses. Nurse practitioners working in emergency care are excellent resources for educating and supporting RNs and RIPERNs because they have advanced knowledge of both emergency care and nursing practice.
- Nurse practitioners working in emergency care are able to share the emergency care work load and on-call requirements of rural general practitioners.
- Patients may be seen more quickly, and there are fewer times when a service is unable to offer assessment and management (including prescription of medications). If the nurse practitioner is an employee of the health service, the patient should be seen without being required to pay.
- A flexible addition to the workforce prevents over-reliance on individual staff. A collaborative approach improves patient safety.

## Challenges

- There are not many nurse practitioners available. The extensive training requirements and associated costs reduce the number of nurses willing to commit to this pathway. Supervised practice as a nurse practitioner candidate requires local nurses to spend time away from home working in a regional or urban centre. The number of candidates for nurse practitioners working in emergency care positions are limited.
- Paradoxically nurse practitioners working at large urban emergency departments are used to the constant availability of senior medical staff for consultation. They may only see a limited spectrum of patients. The isolated nature and wide scope of practice required in rural urgent care centres can be confronting.
- In general nurse practitioners working in emergency care will need to consult more frequently than rural general practitioners. This is particularly so for complex medical presentations. General practitioners may also be required to prescribe less common drugs for these patients.
- Nurse practitioners lack critical care procedural skills such as intubation and central venous access (although many general practitioners also lack these skills). They will need help in these cases from procedural general practitioners, critical care doctors or intensive care paramedics.
- Nurse practitioners will not be as familiar with patients as their usual general practitioner. This requires procedures to ensure information is handed over to the patient's usual doctor.
- Nurse practitioners are a relatively expensive workforce. Currently they cannot claim any rebates from Medicare unless privately contracted. Even then Medicare payments are capped at approximately $49.00 for the most complex patients.
- This is a relatively new role that will lead to new ways of doing things and require a change management process to be in place. Implementation will require a communication strategy with consultation with stakeholders such as general practitioners, hospital staff and the community.

## Case for implementation

The case for change could be built around the following:

- Difficulty sustaining general practitioner services. This could be demonstrated by gaps in the roster and difficulties in engaging general practitioners.
- The number of patients beyond the nurse practitioner's scope of practice (such as complex medical patients or critically ill or injured patients) at a service being low.
- The availability of a local nurse practitioner.

## What you need to implement the model

- A project team, including a project facilitator or manager.
- Guidelines supporting change management and decision making.
- A negotiated agreement with local general practitioners.
- The acceptance and support of nursing staff.
- A scope of practice document, modified for the local workplace.
- Clinical governance infrastructure that accommodates the nurse practitioner working in an emergency care model, including policies, procedures and position descriptions, a clinical review process, clearly articulating roles and responsibilities and patient pathways.
- If the nurse practitioner is working without an on-call general practitioner, a prearranged process of receiving telephone advice from a senior emergency clinician at a regional centre.
- The ability to capture data on unplanned presentations to the urgent care centre.
- Leadership and support from the chief executive officer and senior executives.
- Communication with ambulance services and surrounding hospitals.
- A funding model based on employment by the health service (no Medicare billing) or nurse practitioners employed under contract (using Medicare billing).
- A process to inform the community that they may be seen independently by a nurse practitioner, and that the model is safe.

## Monitoring measures

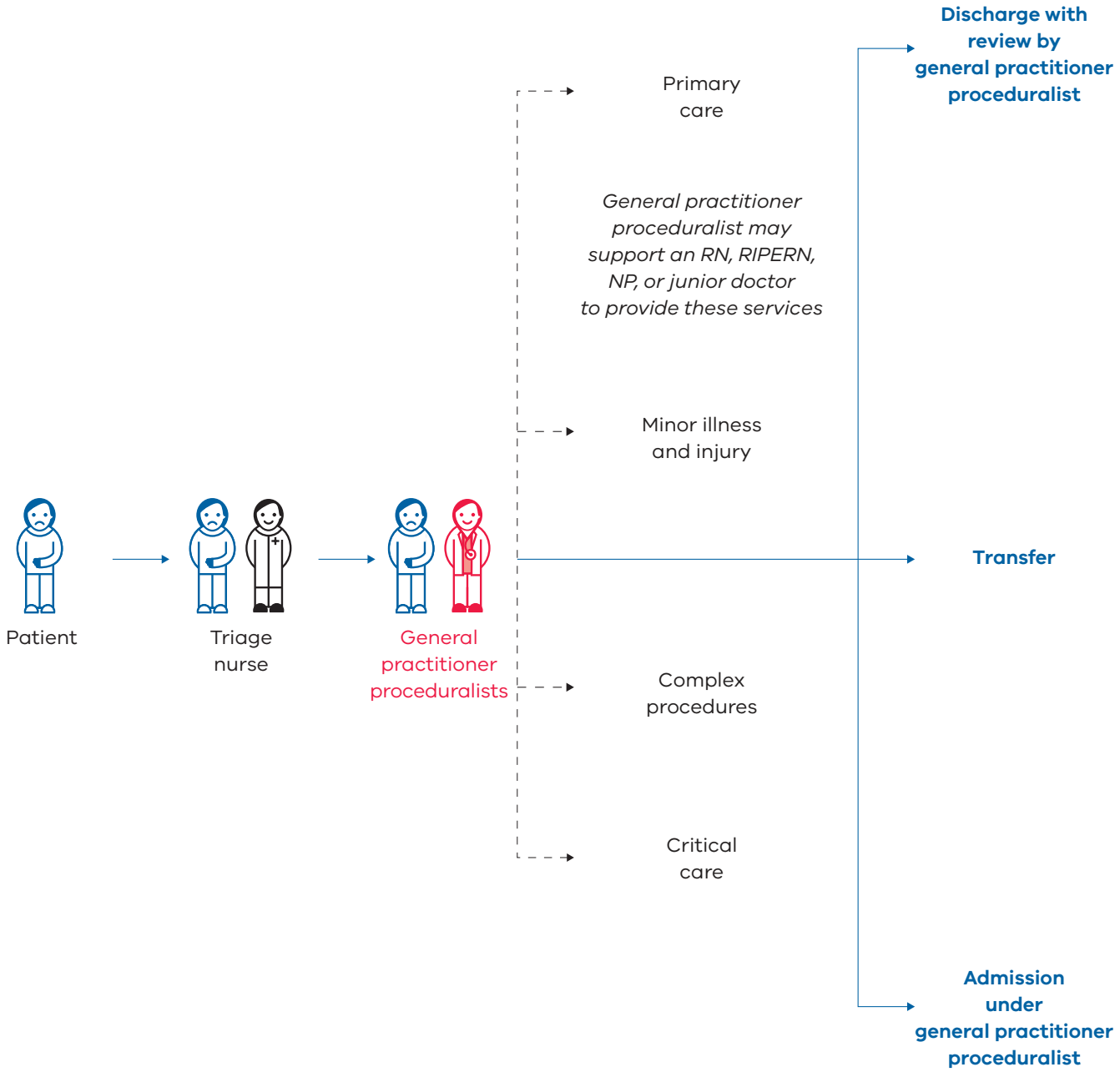
Monitoring and audit should include:

- patient numbers, triage category, length of stay and disposition (admitted, discharged, transferred, deceased)
- reviews of health outcomes, critical incidents, morbidity and mortality and input to the Victorian Health Incident Management System
- the number of patients seen by the nurse practitioner (average per shift and percentage of all patients)
- patient feedback and complaints
- staff satisfaction.

## More information

For more information about nurse practitioners, refer to the department's website at <https://www2.health.vic.gov.au/health-workforce/nursing-and-midwifery/furthering-your-nursing-and-midwifery-career/nurse-practitioner>.

# General practitioner proceduralist



# General practitioner proceduralist

## What is the model?

General practitioner proceduralists (GP proceduralists) have advanced knowledge and skills aimed at providing care in rural communities and at rural health services. GP proceduralists are general practitioners working in rural areas who have accreditation in advanced procedural skills such as surgery, anaesthetics, obstetrics and/or emergency medicine.

GP proceduralists are general practitioners who hold either a Fellowship of the Australian College of Rural and Remote Medicine or a Fellowship of the Royal Australian College of General Practitioners (FRACGP). These doctors may also hold a Fellowship in Advanced Rural General Practice (FARGP).

GP proceduralists are also skilled and accredited in advanced procedural skills in areas such as anaesthetics, obstetrics or emergency medicine. They have four or more years of postgraduate training.

Some GP proceduralists will have completed qualifications in emergency medicine such as a six month certificate or 18-month Diploma of Emergency Medicine offered by the Australasian College of Emergency Medicine.

If a GP proceduralist has current advanced airway skills, unlike nurses, junior doctors or other general practitioners, they will be able to intubate and ventilate a patient who cannot breathe adequately. Other rural clinicians in this situation will have to wait for an intensive care paramedic or retrieval doctor to arrive. GP proceduralists may gain this training through the pathways described above, or through completing a Diploma of Anaesthetics.

## Why use the model?

GP proceduralists skills are tailored to meet the needs of small rural health services. They can care for patients with primary care problems in their general practice, patients with emergency problems in the rural urgent care centre, and patients requiring admission for common medical problems in the acute ward of the hospital. Patients can be cared for in the community, the hospital and back to the community again, all potentially by the same medical practitioner.

GP proceduralists are likely to have a wider range of emergency skills than other general practitioners. This increases the likelihood that they can manage a patient locally (such as a patient requiring a layered wound repair, epistaxis treatment or dislocated shoulder reduction). They also have the skills to stabilise critically ill and injured patients prior to transport.

GP proceduralists may work longer at a rural service because they have developed skills specifically for this purpose. Although they can be employed in general practice, emergency medicine, anaesthetics or obstetrics in regional centres, they are most likely to be able to practise their full skill set in a rural health service.

## Key principles

- GP proceduralists have a wide range of skills suited to rural practice.
- Patients can potentially have their have their emergency care provided by their own doctor.
- GP proceduralists can support RIPERNs, nurse practitioners, junior doctors and general practitioners for complex cases and cases requiring critical care.
- GP proceduralists require less support but will still consult regional specialists and retrieval teams when necessary.

## Benefits of the model

- GP proceduralists can practice their full range of skills in areas where they are in high demand.
- Other local doctors have support for complex and critically ill patients.
- Patients are more likely to have their episode of care managed locally without having to be transferred or travel to another health service. They can potentially see their same doctor for primary care and emergency or procedural care.
- Nurse practitioners, RIPERNs and other nurses can be supported by doctors trained and interested in rural care.
- Rural health services can employ doctors with a wide range of skills, which may increase the chance of long-term hospital service.
- Managing more patients locally means fewer will require transfer to larger centres. This may decrease demand on ambulance services and other health services.

## Challenges

Recruitment is the biggest challenge.

GP proceduralists have a variety of health services to choose from. However, like recruiting other rural professionals, issues such as employment of a spouse or schools for children may be the critical decision points. Health services must make sure they have enough scope of practice for the GP proceduralist to feel their skills are being properly used. There must also be enough primary care patients to make the general practice part of their employment profitable. The on-call requirement must be sustainable and remuneration competitive. Support from nursing staff with increased ability to practise independently, such as RIPERNs and nurse practitioners, will help make the on-call load more sustainable.

A GP proceduralist may not be able to practise all their skills at a rural health service. He or she may have skills they have performed without problem at a larger health service that should not be performed at a smaller health service, unless in an absolute emergency, due to fewer resources and less support. Sometimes GP proceduralist may choose to work occasionally at a larger hospital to practise and maintain these skills.

The health service must also recognise that the extra skills of a GP proceduralist are a valuable resource and encourage and support skills maintenance and ongoing training.

Managing change in an inclusive and consultative way will be an important issue for health service managers.

## Case for implementation

As a specialist trained to provide care in rural and regional communities a GP proceduralist is well suited to work in a rural urgent care centre.

Health services benefit most from GP proceduralists if they are further away from regional centres or their town lacks intensive care paramedics. GP proceduralists can better stabilise unstable patients while waiting for retrieval services to arrive, and they can treat more patients locally.

A GP proceduralist would be able to support other clinicians, which may increase options for filling the on-call roster.

## What you need to implement the model

- A GP proceduralist able to be recruited to your area.
- A general practice to employ the GP proceduralist.
- Hospital arrangements to suit the GP proceduralist, often including:
  - the right to admit patients to the hospital
  - the resources and support to practise other skills (depending on the GP proceduralist, these may include minor surgery, obstetrics or anaesthetics).
- A sustainable on-call roster. This may include a GP proceduralist with airway skills being on call for airway emergencies that are not common, supported by RIPERNs, nurse practitioners or other doctors.
- To maintain airway skills, the GP proceduralist will need to spend time or work in anaesthetics or a regional emergency department.
- To maintain advanced skills, arrangements must be in place to allow practitioners adequate time for ongoing training attendance.

## Monitoring measures

Monitoring and audit should include:

- patient numbers, triage category, length of stay and disposition (admitted, discharged, transferred, deceased)
- the number of patients having critical care procedures
- patient feedback and complaints
- staff satisfaction.

Clinical governance committee meetings documentation, including case reviews, critical incidents, input to the Victorian Health Incident Management System and, where appropriate, mortality and morbidity committee meetings.

## More information

Refer to the following websites:

Department of Health and Human Services, at <https://www2.health.vic.gov.au/health-workforce>.

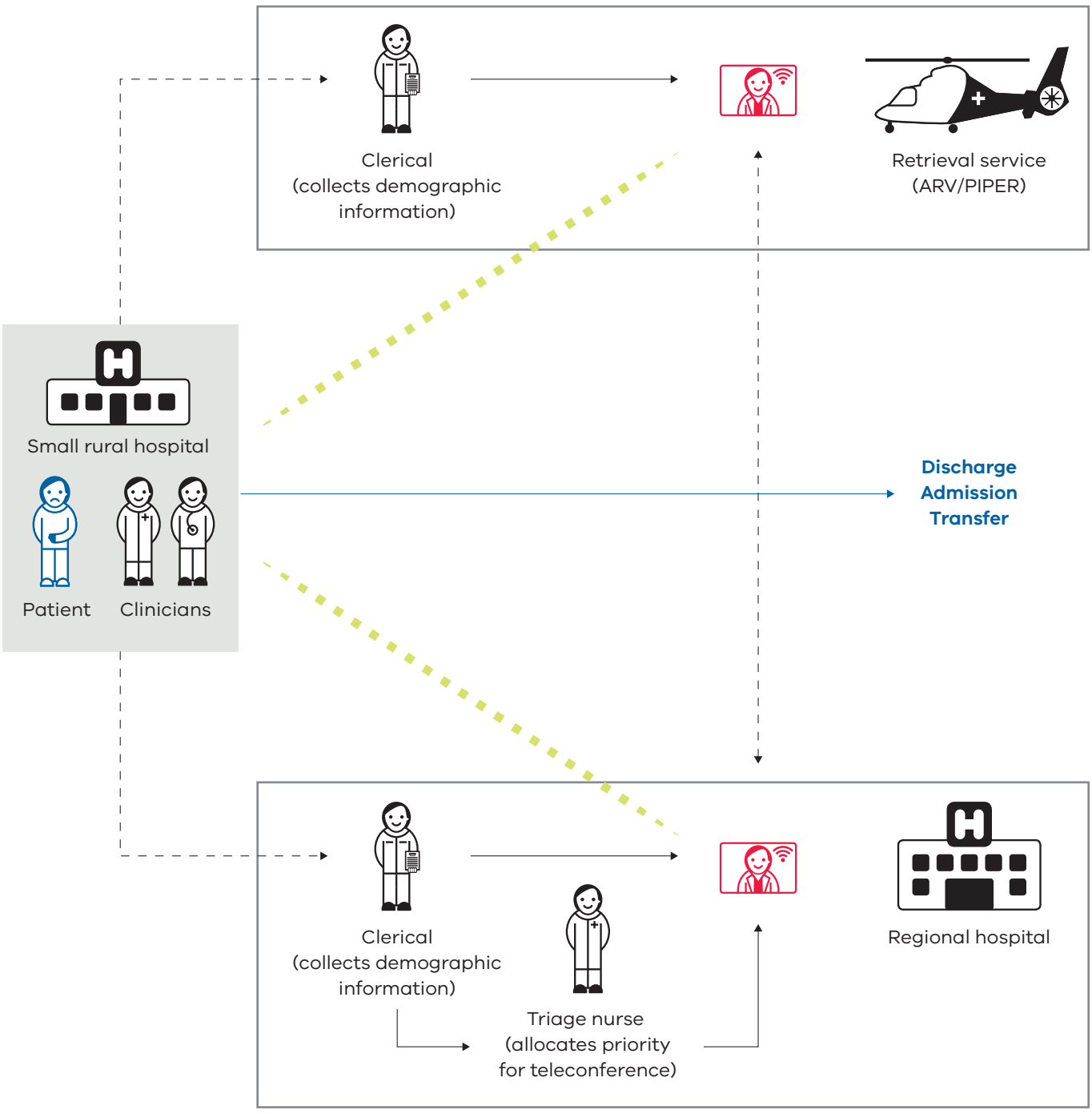
The Royal Australian College of General Practitioners, at <http://www.racgp.org.au/education/fellowship/ruraladvantage/>

The Australian College of Rural and Remote Medicine, at <http://www.acrrm.org.au/>

The Australasian College of Emergency Medicine, at <https://acem.org.au/>

# Section 2: Infastructure and support models

# Telehealth


Clerical
(collects demographic
information)
Retrieval service
(ARV/PIPER)
Small rural hospital
Patient
Clinicians
Discharge
Admission
Transfer
Clerical
(collects demographic
information)
Triage nurse
(allocates priority
for teleconference)
Regional hospital
Telephone
Video-link

# Telehealth

## What is the model?

Telehealth is communicating with clinicians at a distant site using videoconferencing and other image transfer systems. Telehealth can facilitate cost-effective and real-time access to health care. It allows barriers to accessing health care such as distance, cost and time for timely and appropriate care to be overcome. In rural urgent care centres, the consultations are usually urgent and at unpredictable times.

Rural urgent care centres use telehealth in three ways:

- They may communicate with clinicians at regional hospitals. RNs may use telehealth to obtain advice and medication orders from doctors at the regional emergency department. This is usually an out-of-hours program to reduce the load for on-call general practitioners. On-call general practitioners will only be called into the urgent care centre to see the more difficult cases.
- Rural urgent care centres may use telehealth to communicate with statewide adult and paediatric retrieval services about difficult cases.
- Some specialty units at large hospitals might offer support in their area of expertise to rural urgent care centres.

Telehealth allows distant clinicians from larger hospitals to:

- talk face to face with the clinician making the referral
- see the patient and assess difficult-to-describe parameters such as the appearance of a skin condition, work of breathing and conscious state (it may be possible to speak directly to the patient)
- gain enough information to confidently direct management or prescribe medication
- see and understand the limited resources and small number of staff available at the rural urgent care centre (without this understanding clinicians from larger centres may suggest unworkable management plans)
- talk and visually direct a local clinician through a step-by step-procedure
- assist in team direction and leadership education for staff undertaking clinical tasks such as a resuscitation or clinical procedure
- talk face to face with families about difficult topics such as limitation of medical treatment.

Some regional emergency departments will use triage staff to collect initial information and assign a triage code. Staff at the rural hospital will have to wait until their patient reaches the front of the queue.

## Why use the model?

By facilitating clinical consultation and review, telehealth can improve the delivery of safe quality care.

A health service's resources and capacity determines the safe and appropriate level of care they are able to give patients. The assessment of complex patients and patients presenting with undifferentiated illnesses such as headache and chest pain generally require a level of care and staffing not available in small hospitals. The decision to transfer a patient to another health service demands clear communication and coordination between the health services and the ambulance service. Telehealth helps extend specialty assessment and advice out to where patients are and to better inform transfer decisions and the formation of patient management plans. This can reduce unnecessary patient transport and decrease demands on an already busy ambulance service.

Telehealth can also help rural urgent care centres with the least urgent patients. General practitioners can find it difficult to cover the on-call roster at night and during the weekend; telehealth is an option for reducing the number of call outs for local general practitioners to the rural urgent care centre. In some areas nurses at rural urgent care centres can use telehealth to speak to doctors working after hours at the regional emergency department. In this way a small number of doctors can support a large number of urgent care services. The patients discussed are usually not seriously ill. The doctors can also prescribe and/or supply medications, which nurses without nurse practitioner or RIPERN qualifications cannot do.

## Key principles

- Telehealth can bring specialist knowledge to the smallest health services so rural clinicians can be supported by clinicians from larger centres with specialised knowledge.
- Equipment required includes a camera and screen at both ends, telehealth software and sufficient bandwidth.
- Agreed models of care must be negotiated between participating services
- Transfer of digital images, such as x-rays and photographs can assist assessment processes.

## Benefits of the model

- Urgent care clinicians are more supported. A defined telehealth pathway saves many phone calls looking for a specialist willing to help.
- The urgent care centre's on-call load for general practitioners may be reduced.
- Patients receive immediate specialist advice if required, and only travel if they really need to.
- Patient transfers are better coordinated, with receiving hospitals well informed and able to prepare for the patient.
- There may be fewer patient transfers, which reduces demand on the ambulance service and regional hospital emergency departments and reduces the time and monetary cost to patients.
- The model facilitates clinician education and support.

## Challenges

Ease of operation is important. There are many suitable telehealth systems in use, and interoperability between partnership services and statewide telehealth services is required.

Having rural clinicians embed telehealth into their work practices is a significant change management challenge. This is particularly so when it is used mainly for unstable patients. These situations are rare, and familiarity with the telehealth processes can diminish with time. When the system is suddenly needed again, there is no time to refresh telehealth abilities. Often clinicians will return to older systems, such as the telephone. There will also be clinician resistance if the telehealth system does not mirror current, and often idiosyncratic, referral pathways.

Clinicians at the larger health service may have competing commitments. Most of their work may be with patients at their own health service. They may have issues about using telehealth for a small number of patients in surrounding health services. They may feel it is not their responsibility to support junior staff at another health service. This is usually why the urgent care centre and emergency department must have a clear model of care negotiated between the partnership services.

Funding may also be an issue. There is no Medicare rebate for the health service at either end of an emergency consultation from a rural urgent care centre. Emergency departments providing telehealth consultations are able to include this as an activity component of their Accident and Emergency funding grant. For more information refer to the *Funding telehealth video consultations in the emergency department guidelines* at <https://www2.health.vic.gov.au/hospitals-and-health-services/rural-health/telehealth>.

## Case for implementation

Telehealth can facilitate enhanced support of rural urgent care centre staff. RNs may require more support particularly at night or on the weekend when there is no general practitioner on-call.

Sometimes the increased need for remote support arises because of reduced local support. This could happen when junior doctors, nurse practitioners or RIPERNs are on some shifts, or when gaps appear regularly in the on-call doctor roster.

The case for implementation is strengthened when several nearby health services consider a telehealth partnership. The department is actively encouraging rural and regional health partnerships to consider telehealth models of care between urgent care centres and emergency departments.

## What you need to implement the model

- There must be a clear purpose for the telehealth link. The most obvious way to ensure this is to use telehealth to strengthen a communication channel that rural urgent care clinicians already use to obtain advice by telephone.
- Strong leadership is needed. At each end of the link, there must be at least one clinician championing the project. It must be supported by leadership from each health service's senior executive.
- Negotiate a formal agreement between organisations. This should cover costs and responsibilities.
- A partnership model should include the support by participating services of a telehealth project coordinator position.
- Appropriate infrastructure should be available. This includes appropriate cameras, bandwidth and connectivity. As telehealth in this setting is likely to be needed in time-critical situations, the system must be extremely simple, with minimal technical input required from the urgent care centre end. An auto-answering system is an example of a workable system.
- Support staff will need to install and troubleshoot equipment at each end and arrange regular checks of connectivity.
- There should be a change management plan. Staff training and education processes are needed to embed telehealth into normal workflow practices.
- Clinical protocols prevent misunderstanding and provide a framework to support clinician decision making.

## Monitoring measures

Monitoring and audit should include:

- how many patients are being treated (by triage category and diagnosis)
- how many of these patients were able to remain at the rural health service for treatment
- outcome – admitted or discharged
- how many patients were transferred and by whom
- how many and length of telehealth consultations during the patient episode
- length of stay and nursing hours
- patient feedback and complaints
- staff satisfaction.

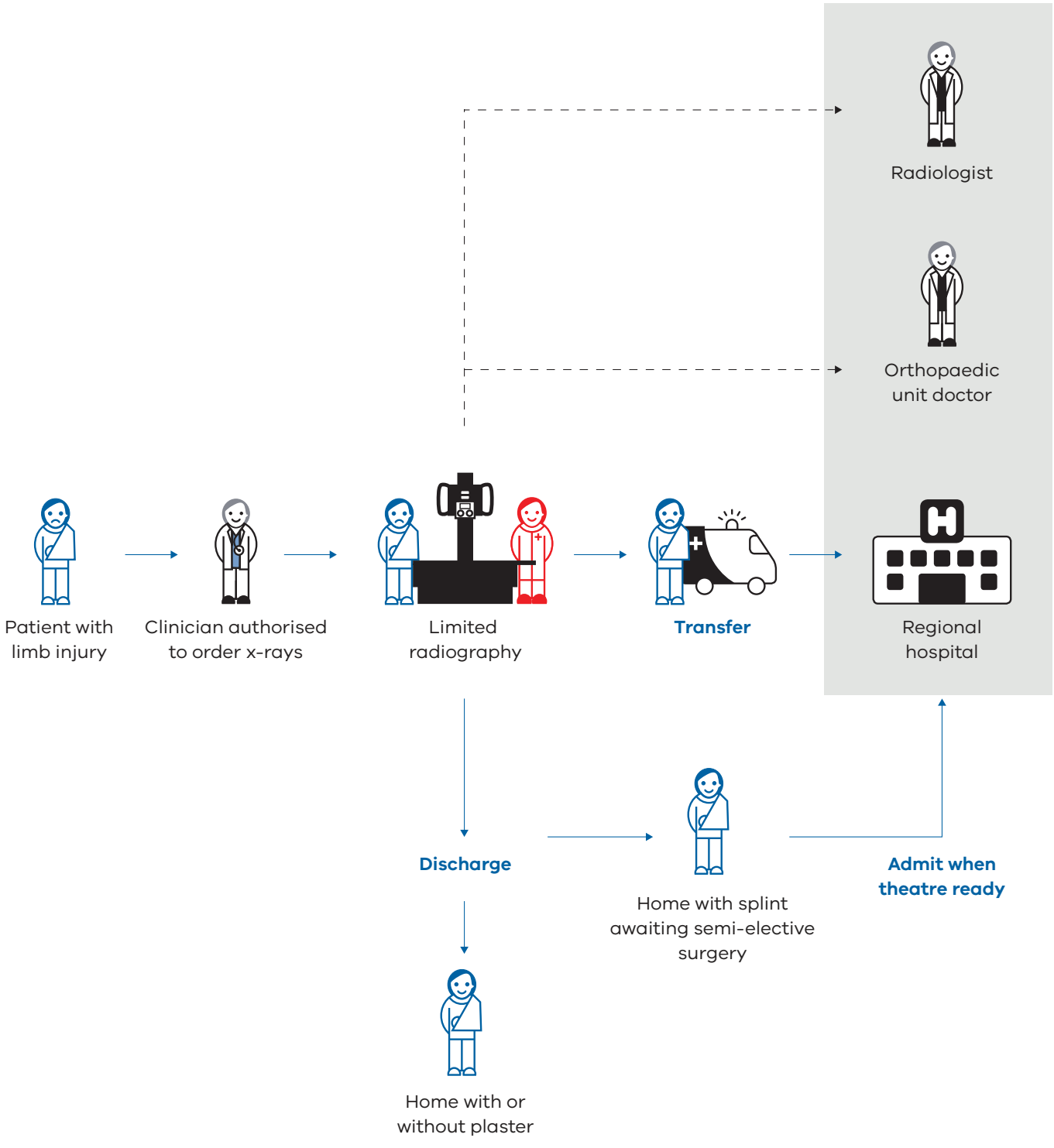
Emergency departments providing telehealth consultations should refer to the *Funding telehealth consultations in the emergency department data collection guidelines* at <https://www2.health.vic.gov.au/hospitals-and-health-services/rural-health/telehealth>.

An independent evaluation will provide a basis for understanding the impact of the model and its ongoing contribution

## More information

For more information about telehealth, refer to the department's website at <https://www2.health.vic.gov.au/hospitals-and-health-services/rural-health/telehealth>.

# Limited radiography



# Limited radiography

## What is the model?

Appropriately trained nurses and doctors with the correct licensing under the *Radiation Act 2005* can perform x-rays for injured patients at rural urgent care centres. This resource is known as a limited radiography or non-radiographer x-ray service. For example general practitioners have been allowed to perform x-rays in Victoria and other states for more than 30 years and nurses participating in a pilot program at Lorne supported by radiologists at University Hospital Geelong have been taking low-risk x-rays since 2009.

Patients in the rural urgent care centre have x-rays ordered by a suitably qualified doctor or nurse. That clinician, if licensed, or another clinician licensed to perform limited radiography, will take the x-ray. Unless it is an emergency, only limb x-rays are allowed. Local clinicians can view the image, but it must also be sent to a radiologist at what is known as the 'auspice service' for reporting. The auspice service will bill Medicare for the service.

The advent of digital x-ray images has made radiography at small hospitals much easier. Chemicals are no longer required for film production, image quality is improved, and transmission of digital images for radiologist reporting is much faster than courier transport of film images. The cost of radiology infrastructure is still prohibitive for many small rural health services.

## Why use the model?

Single-limb injuries are one of the most common presentations to emergency departments of all sizes. Many of these patients will require an x-ray to exclude a fracture, confirm an undisplaced fracture that can be treated with a limb plaster, or find a more complicated fracture that requires intervention by an orthopaedic surgeon.

If a rural health service lacks radiography services, the patient must be sent on an uncomfortable and possibly long trip to a larger health service. There they may have to wait again for an x-ray. The patient must then either return to the rural health service for the report, or wait to be seen at the emergency department of the larger health service. If a fracture requires an operation, but not immediately, the patient may return to their rural town before travelling back to the larger hospital for an operation several days later.

If the rural health service has limited radiography the x-ray may be taken almost immediately and reported soon after. The patient may often be discharged with no treatment or a simple limb plaster. If a patient has a complicated fracture, the image may be sent to a doctor at the orthopaedic service of the larger health service. The patient may then travel to the larger town immediately or after a few days, when surgery is booked. There is no unnecessary travel or waiting.

## Key principles

- A health service operating a limited x-ray service in Victoria must abide by the *Radiation Act 2005*.
- X-ray images can only be taken of the limbs distal to but not including the shoulder girdle and pelvis, except in the case of a medical emergency.

- Doctors and nurses must attend a short course and period of supervised practice to be licensed to perform limited x-rays. They must undertake continuous professional development to maintain their registration.
- In a rural health service, nurses may be in the best position to be available to perform limited x-rays.
- The health service must enter into an agreement with a local regional or radiology service (the 'auspice service'). The auspice service arranges reporting of the images, as well as providing feedback to local staff performing x-rays and identifying issues that need resolution. However, the rural health service retains liability for compliance with all aspects of the *Radiation Act 2005*. The rural health service provides the equipment and pays the licensing fees.

## Benefits of the model

- Patients have safe and timely access to a diagnostic tool in their own community, which can reduce their need to travel and wait at other hospitals for the same procedure.
- The community is reassured that their hospital can assess one of the most common emergency presentations and refer community members for more intensive treatment if necessary.
- By accessing the appropriate training and support, clinicians can expand their scope of practice.
- Fewer patient transports will be required as more patients are able to be treated in their community without adding to already crowded regional emergency departments.

## Challenges

The main challenges are cost and meeting the licensing requirements.

A health service with limited radiography services is unlikely to make a profit. They must purchase the x-ray machine (over $100,000), maintain it, and eventually replace it. They must pay a yearly licence fee of several thousand dollars. They must provide time and possibly financial support to help staff obtain their initial qualification and supervised practice, as well as to maintain their skills. There may be increased insurance costs.

Despite these costs, a health service cannot bill Medicare. Only the auspice service can bill Medicare. The health service is likely to have to charge patients a fee. Although a limited radiography service may reduce ambulance costs for patients.

As the licensed provider of radiographic services, the health service must develop a radiation plan, ensure x-rays are justified and performed with the lowest possible radiation dose, check radiation shielding, keep records, train staff, and run a quality assurance program.

## Case for implementation

A health service may consider a limited radiography service if an audit of their urgent care centre attendance reveals many limb injuries and many patients sent elsewhere for x-rays. A workforce analysis and an understanding of demand for the service would need to be addressed. The case is strengthened if patients and other community members are concerned about the long distances required to reach the nearest x-ray service.

The service should also demonstrate that it requires too few x-rays to make the employment of a fully qualified radiographer feasible.

As the initial purchase of the x-ray machine is very expensive, implementation is unlikely unless the health service can obtain a capital works grant or raise a large amount of donations from community or local industry.

## What you need to implement the model

The most important requirement is an agreement with a local or regional radiography service. This can be difficult to arrange because it is not immediately obvious what a radiography service that is already charging for x-rays performed in its central location will gain from supervising limited radiography in a peripheral location. Such agreement will only be reached with strong executive support and a senior radiographer from the potential auspice organisation convinced of the need.

The rural health service administration needs to understand their radiation responsibilities and obtain a licence.

An x-ray machine able to take digital images will need to be purchased. It will need to be linked to a picture archive and communications system for the transfer and storage of digital images.

There must be enough local doctors and nurses willing to undergo training. Ideally, enough clinicians need to be trained to have limited radiography available every day. It is not necessary to have enough trained staff to take x-rays out of hours. Even moderately large rural hospitals will only call back a radiographer at night for life-threatening problems – not for limb injuries. Patients presenting with out-of-hours limb injuries have their injured limb splinted and return in the morning. A rural urgent care centre can take the same approach.

## Monitoring measures

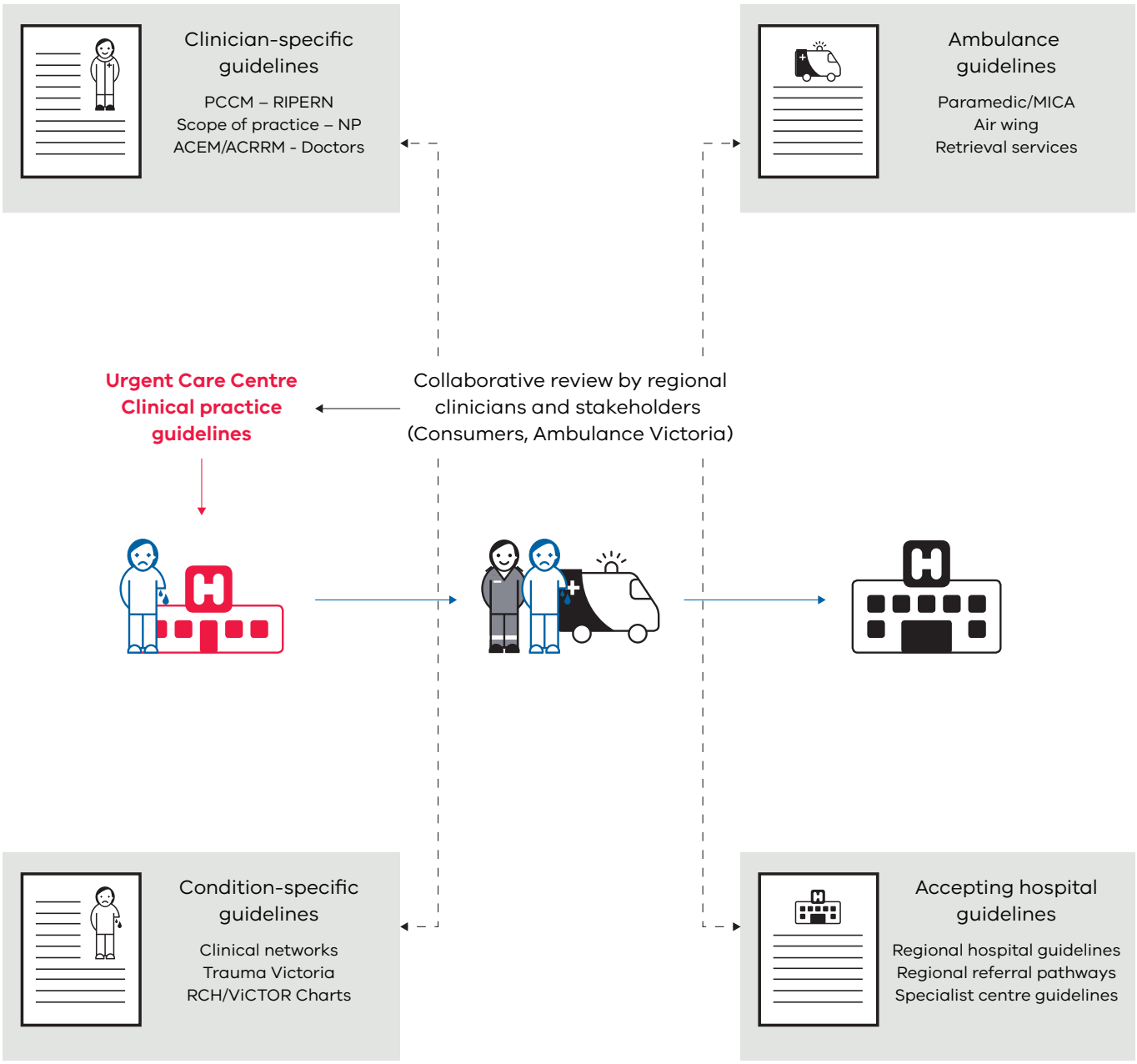
The service should monitor:

- consumer feedback
- the number and quality of images and their impact on service delivery
- staff satisfaction and concerns
- patient feedback and complaints
- critical incidents, with input to the Victorian Health Incident Management System
- service costs and payment
- satisfaction of the auspice organisation, including key performance indicators, financial outcomes and any concerns.

## More information

For more information about the limited radiography model, refer to the department's radiation website at <https://www2.health.vic.gov.au/public-health/radiation>.

# Clinical practice guidelines and resources



# Clinical practice guidelines and resources

## What is the model?

Clinical practice guidelines provide recommendations for what clinicians should do in specific situations to achieve the best health outcomes possible for a patient. They are not mandatory. Clinical guidelines are generally developed by groups of specialists based on a rigorous analysis of international evidence-based data to provide a suggested pathway for procedures and practices in a particular clinical area. They are regularly reviewed and updated.

Properly sourced and reviewed as applicable for a rural urgent care centre's resources and staffing, clinical practice guidelines are a useful ready reference.

There is an extensive range of resources to guide rural urgent care centres developed by clinical practice leaders. These include the Victorian Clinical Networks, health services such as the Royal Children's Hospital, Ambulance Victoria, the Victorian State Trauma System's education portal and the *Primary clinical care manual* developed for RIPERNs by Queensland Health and the Royal Flying Doctor Service (2016). The key is to assess and evaluate the guideline(s) as being appropriate and applicable to the rural urgent care centre's staffing and other resources.

Clinical guidelines can also be sourced from larger health services, which enables similar clinical practices to be implemented that can facilitate patient transfer processes if required. These clinical practice guidelines would generally need to be adapted for use in a rural urgent care centre. The resources and patient management processes at the emergency department or intensive care unit of larger health services can be very different from a rural urgent care centre. The larger health service may assume easy access to specialist staff, diagnostic equipment and on-site surgery. There is also the need for the rural health service to capture when the larger health service revises and updates their clinical protocols.

## Examples of guidelines

Ambulance Victoria's clinical practice guidelines are produced using an internationally recognised development tool by a panel of paramedic and medical experts and are based on the best available evidence. They provide a straightforward approach to emergency presentations and problems and are designed for situations where information and resources are limited. A rural urgent care centre should align their guidelines for treating seriously unwell patients with ambulance guidelines. As almost all seriously ill patients at a rural urgent care centre will be transported to a larger hospital by ambulance, complementary guidelines allow seamless emergency care.

The guidelines for ambulance and mobile intensive care ambulance paramedics are available for download from <www.ambulance.vic.gov.au/Paramedics/Qualified-Paramedic-Training/Clinical-Practice-Guidelines.html>. More advanced but complementary guidelines are available for flight paramedics and the adult retrieval teams. These can be obtained on request from Ambulance Victoria.

The Victorian Paediatric Clinical Network funded development of the Victorian Children's Tool for Observation and Response (ViCTOR) urgent care charts for monitoring and assessing paediatric patients in rural urgent care centres.

ViCTOR comprises a set of five age-specific standardised track-and-trigger paediatric observation and response charts that mandate a response by the clinician once the patient's observations deteriorate to a designated zone. They are the current best evidence of paediatric centile ranges for escalation of care. The guidelines and resources are available via the ViCTOR website at <https://www.victor.org.au/>.

The Victorian Clinical Networks are groups of health professionals, health organisations and consumers who work collaboratively to provide leadership and clinical service development across a number of specialty areas of health care. Clinical networks are active across a number of clinical areas – emergency care, cancer, cardiac, critical care, maternity and newborn, palliative care, paediatric, renal and stroke care. To access the networks resources go to <www2.health.vic.gov.au/hospitals-and-health-services/quality-safety-service/clinical-networks>.

RIPERNs operate in accordance with the *Primary clinical care manual* (Queensland Health and the Royal Flying Doctor Service 2016), which contains evidence-based clinical guidelines and health management protocols, and is reviewed every two years. From 2017 the *Primary clinical care manual*'s Queensland-based peer review committee includes a position for a Victorian delegate. In addition Victoria forms its own Primary Clinical Care Review Committee every two years when a new edition of the manual is published. The Victorian committee includes representatives from Ambulance ictoria, the Chief Medical Officer and the Chief Nurse and Midwifery Officer from Safer Care Victoria.

## Why use the model?

Clinical practice guidelines ensure staff in urgent care centres are using evidence-based guidelines. With resources like ViCTOR this means Victorian urgent care centres are all using the same guidelines, allowing for consistent and seamless internal and external transfers and ease of workforce movement between Victorian services.

Emergency situations occur infrequently. It is important to perform all the steps, but they can be difficult to remember. Guidelines ensure the correct approach is followed. The number of emergency situations is vast, so many guidelines are needed. Few rural urgent care centres have the resources to review the evidence and write their own set of guidelines. Ambulance guidelines assume minimal resources. Their aim is to stabilise patients and move them to a more appropriate level of care. For complex and unstable patients, this is what rural urgent care clinicians are working to do.

Seriously ill or injured patients in the urgent care centre may be cared for simultaneously by paramedics, nurses and doctors. Collaborative care requires the team of clinicians to have the same overall understanding of what should be done for the patient. Disagreements about indications for specific procedures or which medications to use detract from patient care. This is particularly so in time-critical situations and when the paramedics and rural urgent care clinicians have not met each other previously.

Of particular note, many medication infusions can be made in different strengths. If the protocols from the rural urgent care centre and ambulance service suggest different infusion strengths then transfer from hospital to ambulance will be delayed as new infusions are made.

A coordinated approach to using clinical guidelines within a regional area will facilitate communication and consultation between rural urgent care centres and regional health services and assist patient transfer processes if required. Geographically linked hospitals, health services and Ambulance Victoria need to be aware of the clinical protocols in place.

GP proceduralists with advanced critical care skills may benefit from using the Victorian State Trauma System guidelines, as rural urgent care guidelines do not often address such advanced techniques.

## Key principles

- Clinical guidelines must be evidence-based and regularly updated.
- Sharing guidelines enhances collaborative practice and streamlines care.
- Benefits of the model
- Patients receive evidence-based care that supports a more seamless patient journey if transfer is required.
- A more collegiate approach to patient management between urgent care clinicians and paramedics is developed.
- Hospital resources are used more efficiently – for example, medication infusions will only need to be mixed at one concentration.
- The community can be certain that in the urgent care setting they are receiving evidence-based care from credentialled health professionals using regularly updated guidelines.

## Challenges

Communication and understanding of the different guidelines between different services is a challenge that needs to be continually addressed. For example, communication and understanding of the guidelines between urgent care centres, emergency departments and ambulance services must be maintained.

RIPERNs follow guidelines from the latest edition of the *Primary clinical care manual* (Queensland Health and the Royal Flying Doctor Service 2016) for both critical and non-critical emergency presentations. Although these guidelines are quite similar to ambulance guidelines in many respects, clinicians do need to be aware of where they differ.

## Case for implementation

The need for critical care guidelines is crucial for all clinicians in the urgent care setting and in emergency care for safe and appropriate evidence-based care or transfer.

Using ambulance-based guidelines for rural urgent care guidelines will ensure evidence-based care that is regularly updated and easily accessible online. Rural urgent care centres co-located with ambulance branches, where paramedics often have a strong presence in supporting hospital staff, may also see value in this approach.

## What you need to implement the model

- An agreed clinical guideline source(s) identified in consultation with health service regional partners and Ambulance Victoria.
- The agreed clinical guidelines are reviewed in a collaborative manner as being appropriate for the resources and capabilities of the rural urgent care centre.
- A senior clinician and executive leadership to work with staff and key stakeholders to promote the need for use of evidence-based clinical practice guidelines.

## Monitoring measures

Use all existing monitoring measures for the different models of care related to the specific clinical practice guidelines.

In addition, services can audit transfers to other hospitals as a quality assurance exercise, as most critically unwell patients at a rural hospital will be transferred to a larger service. These cases could be audited for avoidable adverse outcomes and compliance with guidelines.

## More information

More information is available from the following sources:

Clinical practice guidelines – Ambulance and MICA paramedics <http://ambulance.vic.gov.au/paramedics/clinical-practice-guidelines/>

Victorian State Trauma System – Major trauma guidelines and online education portal <http://trauma.reach.vic.gov.au/>

Victorian clinical networks <https://www2.health.vic.gov.au/hospitals-and-health-services/quality-safety-service/clinical-networks>

Royal Children's Hospital clinical guidelines <http://www.rch.org.au/clinicalguide/>

Victorian Children's Tool for Observation and Response (ViCTOR) – urgent care charts <https://www.victor.org.au>

*Primary clinical care manual* for RIPERNs <https://publications.qld.gov.au/dataset/primary-clinical-care-manual-9th-edition/resource/06f04fcb-6eb6-45eb-9770-c4a79a715b62>

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# Conclusion

The delivery of safe, person and family centred, high-quality health care is a priority for all health services. Rural health service managers need to balance the capability of their services with the resources and staff available to ensure the delivery of services that meet their community's needs.

This document recognises the importance of having the right staff skill mix and expertise, providing them with the necessary tools and resources and the need for proper training and professional support to ensure the delivery of safe care to patients.

The models of care descriptions in this document are a guide for rural hospital executives and clinicians to gain an understanding of potential options available to rural urgent care centres.

# Abbreviations

| | |
|---|---|
| **AHPRA** | Australian Health Practitioners Regulation Agency |
| **ALS** | Advanced life support |
| **ATS** | Australian triage scale |
| **ARV** | Adult Retrieval Victoria |
| **AV** | Ambulance Victoria |
| **CEO** | Chief executive officer |
| **Dr** | Doctor |
| **FRAGP** | Fellows of the Royal Australian College of General Practice |
| **GP** | General practitioner |
| **GP proceduralist** | General practitioner proceduralist |
| **MOU** | Memorandum of understanding |
| **NP** | Nurse practitioner |
| **PCCM** | *Primary clinical care manual* (Queensland Health 2016) |
| **PIPER** | Paediatric infant perinatal emergency retrieval system |
| **REACH** | Retrieval and Critical Health System |
| **RN** | Registered nurse |
| **RIPERN** | Rural isolated practice endorsed registered nurse |
| **UC** | Urgent care |
| **UCC** | Urgent care centre |
| **ViCTOR** | Victorian children's tool for observation and response |

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