

Streaming of COVID-19 patients Requiring Acute Care in Victoria

Updated 29 November 2021

OFFICIAL

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Background

The Department of Health (DH) is continuing to draw upon lessons learnt during Victoria's experience with the COVID-19 pandemic to make further improvements to our health system.

DH has been working with health service executives, clinical leaders, and experts to develop a process for managing the transfer and care of COVID-19 positive patients. This is an evolution of existing arrangements for COVID-19 positive patients, including the treatment of hotel quarantine residents, who require hospital care. The process will enable a scalable approach to system capacity while ensuring best possible outcomes for patients and staff alike. Of course, the majority of people with COVID-19 do not require hospitalisation. This process does not apply to COVID-19 cases not requiring hospitalisation.

COVID-19 positive patients requiring acute hospital services will be cared for in a selected number of health services. This will reduce the exposure and movement of COVID-19 positive patients across the health system. Managing COVID-19 positive patients using this approach will also minimise the disruption of non-COVID care within the health system, such as elective surgery and outpatient service delivery.

The objectives of the acute health service streaming model are to:

- Provide safe and high-quality care for hotel quarantine and confirmed COVID-19 patients, that does not compromise the care provided to non-COVID-19 patients.
- Reduce likelihood of transmission of COVID-19 amongst other patients, health care workers and visitors.
- Mitigate risks of further COVID-19 transmission in the community.
- Enhance the management of resources required for care for COVID-19 patients.

Acute Patient pathway process

A summary of the patient pathway process can be found at **Appendix A**.

Patients included in the process

The table outlines the definitions of patients captured and the overarching recommendation on where they should be streamed to, if requiring hospitalisation.

Patient group	Definition	Streaming/transfer instructions
COVID-19 positive	Patients who have tested positive to a validated SARS-CoV-2 test	Direct transfer/streamed to a selected hospital, if safe for the patient.
Patient in hotel quarantine	Patients who are residing in hotel quarantine following recent travel from a domestic hotspot/international destination	Direct transfer/streamed to a selected hospital, if safe for the patient.
Patients with suspected COVID-19	Patients with either (or both) clinical or epidemiological risk factors; i.e., High-risk or low-risk SCOVID	Treatment at the closest appropriate hospital. Patient is triaged and tested as per local COVID-19 guidelines. If patient is tests positive, transfer to a selected service if clinically stable.
Patients with no COVID-19 risk factors	Patients who do not have any clinical or epidemiological risk factors	No change from routine care pathway

Patients meeting the criteria will be transferred/streamed to a selected service if they require hospital-based care for one (or more) of the following reasons:

- The patient is likely to require admitted acute care (either related to COVID symptoms or for other, non-COVID related, reasons)
- The patient requires hospital provided sub-acute care (either related to COVID symptoms or for other, non-COVID related, reasons) that cannot be undertaken through telehealth and cannot be delayed or postponed.
- The patient requires ambulatory care (i.e., attendance to an out-patient service) that cannot be undertaken through telehealth and cannot be delayed or postponed.
- Patients requiring admission because of public health reasons (i.e., an aged care patient, who may not require hospitalisation, but for the safety of patients and workers at their facility, may be transferred to a low-acuity service)

This process is not for patients managed by health services and primary care providers in their homes and in the community.

Principles

The patient pathway approach has been built on the following guiding principles:

- Prioritisation of patient outcomes – the outcomes for the patient should be prioritised over the need for them to be streamed to a selected service.

- Healthcare workers and the wider community are adequately protected from the risks of COVID-19 transmission and infection.
- Decisions to stream patients to selected services are based on local clinical assessment.
- Consideration of current Victorian retrieval resources demands, so this approach can be accommodated safely for both patients and the workforce supporting their transfer.

Patient admission into the model

The selected services within this model will be responsible for treating COVID-19 positive patients and Hotel Quarantine Residents. However, the entire healthcare system will contribute to the process, and services that are not selected will still be required to safely and effectively manage suspected and, in some circumstances, COVID-19 positive cases.

For all patients, irrespective of their source and COVID status, current Ambulance Victoria transfer and emergency principles for triaging and admitting patients should be maintained. Specifically, patients who require immediate, time-critical intervention should be taken to the closest appropriate health service.

To continue to build on the effective hotel quarantine process, local health professionals and Ambulance Victoria will remain the primary decision makers to manage patients at, and transfer to or from, the selected services.

Current sites

A current list of sites in the COVID-19 streaming model are as follows:

High Acuity Sites	Specialist Sites	Low Acuity Sites
The Alfred	Royal Children's Hospital (paediatric patients)	Northern Hospital, Epping
Royal Melbourne Hospital	Royal Women's Hospital (Pregnant women in hotel quarantine and pregnant women and women's health patients from the community)	Epping Private Hospital
Northern Hospital, Epping	Northern Hospital, Epping (maternity patients)	Goulburn Valley Health
University Hospital Geelong	University Hospital Geelong (maternity patients)	La Trobe Private Hospital (Emergency accommodation for medically well SCOVID/COVID positive children of COVID positive parents or guardians)
Monash Medical Hospital	Monash Medical Hospital (paediatric and maternity patients)	Werribee Mercy Hospital
Casey Hospital	Box Hill Hospital (maternity patients)	

Dandenong Hospital	Joan Kirner Women's and Children's Hospital (maternity patients)	
Box Hill Hospital		
Sunshine Hospital		
Footscray Hospital		
The Austin Hospital		
Frankston Hospital		
Bendigo Base Hospital		
Goulburn Valley Health		
St Vincent's Hospital		
Latrobe Regional Hospital		
Epworth Richmond		
Ballarat Base Hospital		
Werribee Mercy Hospital		
Albury Base Hospital		

Hotel quarantine resident

Hotel quarantine residents who require inpatient care will be transferred to one of the following sites:

- General High Acuity sites: The Alfred Hospital, Royal Melbourne Hospital
- Specialist High Acuity sites: The Royal Children's Hospital (Paediatric service), The Royal Women's Hospital (Maternity and Women's Health service)

COVID-19 Quarantine Victoria (CQV) is the responsible authority for the mandatory quarantine program. The care of all hotel quarantine residents will be managed by the selected services, as per the established pathway for these patients. Please refer to *Transfer of Mandatory Quarantine hotel residents to emergency departments of acute hospitals* guidance document, saved in the Health Services Secure Portal for more information.

Aged care residents

The process for arranging transfers of RACF COVID-19 positive patients requiring hospitalisation should align with existing policies.

1. Decisions to transfer non-emergency COVID-19 positive aged care residents for public health reasons will be made by Public Health (Victorian Department of Health), and coordinated through the Victorian Aged Care Response Centre (VARC) in conjunction with AV, the RACF and the Commonwealth.
2. For immediate clinical emergencies, residential aged care services should call '000'.

For further detail, please contact operations@VACRC.gov.au

Refer to *Transfer policy for residents in aged care who test positive to COVID-19* guidance document, saved in the Health Services Secure Portal for more information.

Patient enrolled in COVID Positive Pathways Program

Patients enrolled in COVID Positive Pathways, who have been classified as “high severity”, requiring acute hospital care, should be streamed to one of the selected services, if safe to do so.

For patients classified as “medium severity”, consideration should be given to the likelihood of the patient requiring acute care, so that early transfer to one of the selected services can be arranged.

All other components of the COVID-19 Positive Pathway Program will remain the same.

It is important to note that the majority of people with COVID-19 have been and will continue to be managed by health services and primary care providers in their homes and in the community. This includes providing social support and care for other health conditions while these COVID-19 positive Victorians self-isolate. More information on COVID-19 Positive Care Pathways can be found at <https://www.dhhs.vic.gov.au/clinical-guidance-and-resources-covid-19>

Emergency accommodation for children of COVID positive parents or guardians

The Northern-La Trobe accommodation for unaccompanied children following hospital admission of COVID-19 positive parents or guardians has been relocated from La Trobe Private Hospital to a facility at La Trobe University Bundoora.

The Northern-La Trobe Children in Care service has been established to accommodate children (1 year to 17 years of age) that cannot otherwise be cared for at home or in the community following admission of their parents or guardians. Clinical care for the Northern-La Trobe Children in Care service is provided by Northern Health through Paediatric HITH.

The Northern-La Trobe Children in Care service is not appropriate for children that are medically unwell.

Suitability for admission to the service is determined via virtual consultation between Northern Health Paediatric HITH, Ambulance Victoria/health service with child/ren, and a Northern Health Paediatric consultant. This consult must occur in the presence of a clinician, and the intake process now requires electronic consent forms to be signed by a parent/guardian prior to admission.

- If children determined suitable for admission, transfer of well child/ren by Ambulance Victoria is direct to the La Trobe University facility where the Northern-La Trobe Children in Care service is located. Access is between the hours of 8am-8pm only (9am-5pm Sundays). Outside of these hours, children requiring urgent care will need to be transported to Northern Health to await placement.
- If child/ren is/are unwell then transfer by Ambulance Victoria is to streaming hospital paediatric streaming service (currently Monash Medical Centre or Royal Children’s Hospital).

Referrals to the service are accepted from Ambulance Victoria, Health Services and Community Monitoring Programs.

The Department of Health and the Department of Families Fairness and Housing are continuing to identify and resource additional support options for families. If parents are home, but require support, please contact carecoordination@vt.uniting.org or for Aboriginal families, covidcare@vacca.org.

ED presentations

Clinicians in local hospital Emergency Departments should assess patients who present with high-risk or low-risk suspected COVID-19 and undertake testing as per current guidelines.

If the patient is confirmed COVID-19 negative, the patient should remain at the local hospital for care.

If the patient is confirmed COVID-19 positive and requires admission, the treating clinician should arrange a transfer to the nearest selected service, based on a clinical assessment of the patient's condition and care requirements.

Patients who are concerned about COVID symptoms but are not currently within a COVID positive pathway, should not be encouraged to attend a selected service's Emergency Department if it is not their local appropriate service. All of the state's Emergency Departments have the capability and capacity to effectively manage suspected COVID cases.

Women requiring obstetric or gynaecological care

Given the complexities associated with pregnant women who are also COVID-19 positive, the following advice is provided for the sector:

Women in hotel quarantine

If a pregnant woman in hotel quarantine requires acute care, she should be transferred to a Specialist High Acuity Service (The Royal Women's Hospital) for obstetric treatment and care, or to a General High Acuity Service (The Royal Melbourne Hospital) for acute care as per the established pathway for these patients. The non-admitting service will provide in-reach support (e.g., The Royal Women's Hospital providing obstetric care and support to The Royal Melbourne Hospital, if the patient is admitted there for a respiratory related illness). Please refer to *Transfer of Mandatory Quarantine hotel residents to emergency departments of acute hospitals* guidance document, saved in the Health Services Secure Portal for more information.

Pregnancy Assessment

If a COVID-19 positive woman requires a pregnancy assessment (e.g. assessment for reduced fetal movements), she should present to her booked private or public maternity service. All pregnancy assessments and/or outpatient monitoring can be safely conducted at the maternity service where the woman has booked into for care.

Pregnancy care will be supported by the booked maternity service, general practitioner (GP), or private provider (private obstetrician or midwife). Please refer to the *COVID + Pathways Guidance: Maternity Care Pathway* for more information.

Hospital Admission

If a COVID-19 positive pregnant woman requires hospital admission, she should be streamed to the most appropriate public COVID-19 streaming maternity site for treatment and care.

This could be the woman's booked maternity service, provided the booked service is a current streaming maternity site, and the care required is within the capability of the maternity streaming site.

Current maternity streaming sites are:

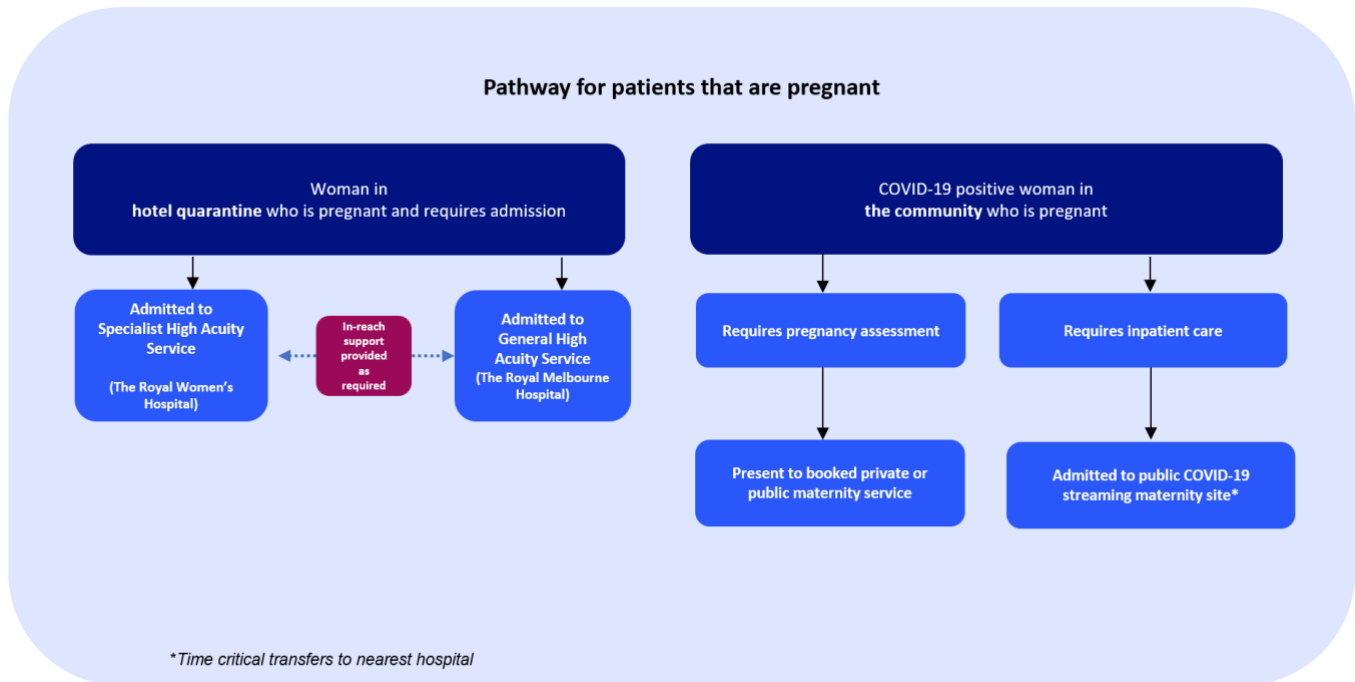
- The Royal Women's Hospital
- Monash Medical Centre
- Joan Kirner Women's and Children's Hospital
- The Northern Hospital
- University Hospital Geelong
- Box Hill Hospital

Transfers from non-streaming sites to streaming sites should be arranged only if clinically safe to do so.

Additional maternity sites are actively being added to the COVID-19 streaming maternity model. This document will be updated as additional sites become operational.

For women in hotel quarantine or in the community who are COVID-19 positive and require gynaecological care, they should be transferred to a Specialist High Acuity Service (The Royal Women's Hospital) for treatment and care.

Figure 1: Pathways for patients that are pregnant



Ambulance transport and Streaming of COVID-19 patients

Community 000 calls

When a person in the community calls 000, regardless of their COVID status, they will be triaged and managed following AV's usual processes. A COVID positive person should tell the call-taker of their COVID status at the first appropriate opportunity. The following will usually occur with a 000 call:

- Be triaged at point of call to determine if an emergency ambulance, non-emergency ambulance or alternative service provider is suitable
- If indicated, dispatch an ambulance as required
- The emergency ambulance crew will contact AV's COVID Coordination hub to determine a suitable location:
 - Time critical patients will be sent to the closest appropriate hospital (regardless if it is a streaming site or not)
 - Non-time critical patients will be directed to an appropriate streaming site, considering: the location of the patient; acuity of patient; speciality requirements; COVID ward bed availability; site status (e.g. offline); and recent COVID positive workload
- Ambulance crews will provide a notification to the hospital that they are en-route once loaded, as per usual operational practices. This notification is provided so that health services have an opportunity to

prepare to receive the patient. It is not an opportunity for health services to negotiate or refuse the admission.

Note: Where a 000 call would normally be assessed as appropriate for review by an alternative service provider (instead of attending a hospital), they will be redirected to their HITH/LPHU contact, or an equivalent telehealth service.

Organised admissions

If a COVID Positive patient in the streaming pathway program requires an organised admission to hospital, the following should occur:

- The referring health practitioner should contact the COVID admitting officer at their nominated receiving streaming site to confirm admission.
- Once admission is confirmed the COVID admitting officer at the receiving site is to contact the AV COVID Coordinator on 1300 565 115 to request transport of the patient. The patient needs to be stable, suitable for a non-emergency ambulance only, and able to wait 90 minutes or more.
- Ambulance crews will provide a notification to the hospital that they are en-route, as per usual operational practices. This notification is provided so that health services have an opportunity to prepare to receive the patient. It is not an opportunity for health services to negotiate or refuse the admission.

Important note: Any time critical or emergency situation should be made as a 000 call

Discharges from hospital

If a COVID Positive patient in a streaming hospital requires discharge from hospital to home, the following should occur:

- Where possible the patient should be transported by private means. The transport may be provided by someone who is COVID positive (likely a family member from the same household) where it safe and reasonable to do so.
- If the patient cannot be transported by private means, the referring health practitioner should contact the AV COVID Coordinator on 1300 565 115 to request transport of the patient.
- The referring practitioner will be asked if a clinical transport platform is required (e.g. if a non-emergency ambulance or a community transport platform is appropriate). This will include questions about what the reason for admission to hospital was for, as well as current observations and clinical status.
- AV have the capacity to transport multiple COVID positive patients in one vehicle. Where possible, and where discharges won't be delayed, consideration should be given to arranging multiple discharges at once.

Inter-hospital transfers

Where a COVID Positive patient requires transfer from a non-streaming hospital to a streaming hospital, the following should occur:

- The referring health practitioner should contact the COVID admitting officer at their nominated receiving streaming site to confirm admission.
- Once admission is confirmed, clinical handover is to be given between hospitals, and COVID admitting officer at the receiving site is to contact the AV COVID Coordinator on 1300 565 115 to request transport of the patient. The patient needs to be stable, suitable for a non-emergency ambulance only, and able to wait 90 minutes or more.

- Once loaded with the patient, ambulance crews will provide a notification to the hospital that they are en-route, as per usual operational practices. This notification is provided so that health services have an opportunity to prepare to receive the patient. It is not an opportunity for health services to negotiate or refuse the admission

Prioritisation of services

In transporting COVID Positive patients as part of the Streaming program, the following prioritisation will usually occur to patient movements:

1. Admission into hospital
2. Discharge from hospital
3. Inter-hospital transfer (non-streaming to streaming site)

Who determines whether a patient should be transferred?

For COVID-19 positive patients entering the selected process through Triple Zero Emergency Services, Ambulance Victoria will assess whether the patient is suitable for transport to one of the services above or to the closest, appropriate hospital.

For COVID-19 positive patients who self-present to a local hospital, the local emergency department will treat and assess the patient to determine if they are stable for transfer to a service listed above.

For all other patients, including potential suspected COVID patients, the local hospital emergency department will treat the patient and, following a positive COVID test, assess if the patient is suitable for inter-hospital transfer.

Managing a patient prior to transfer

Prior to transfer, the patient should be managed in their local hospital in accordance with relevant local, state and national guidelines. In the majority of cases, a patient should only be transferred once they are known to be COVID positive. The exception to this rule, is where a patient is at risk of adverse outcomes, either due to delays in treatment and/or the streaming of patients to a selected service is unsafe.

More information on managing COVID-19 patients in emergency departments and urgent care centres can be found at <https://www.dhhs.vic.gov.au/clinical-guidance-and-resources-covid-19>.

When is it not safe to transfer?

Patient transfers must always prioritise patient outcomes. Where a patient in the community has a time critical illness, they should be transferred to the closest appropriate hospital rather than have their care delayed by being transferred to a selected service that is significantly further away.

For patients that have already presented to a local health service, local clinical decision-making will be central to determining if the potential benefits of transferring a patient are outweighed by the risks to patient outcomes. If it is deemed that transferring a COVID positive patient presents to much of a risk to their outcome, steps should be taken to continue safely treat the patient at the local service until the patient can be transferred or discharged.

In addition, the decision to transfer of a COVID positive patient is depended on the availability of safe transport resources. Where these are not available, health services must continue to safely look after the patient with appropriate isolation procedures, infection control protocols and PPE all implemented until transport can be arranged.

Transfer process

Selected hospitals within this approach are split into three broad categories: high-acuity services, low-acuity services, and specialist services. Determining the destination for transfer will be dependent on the clinical judgement of the team that deemed the patient eligible for transfer (i.e., attending health professionals at the hospital the patient presented to, Ambulance Victoria or community/primary care providers).

The choice of appropriate acuity can be guided by the following principles:

- If a patient requires; maternity, paediatric or designated complex critical care (i.e., ECMO), a specialist hospital should be considered.
- If a patient requires moderate to complex support (i.e., ventilation, comprehensive medical support or has co-morbidities complicating care) then a high-acuity service should be considered.
- If a patient is stable and only requires observation and/or simple medical support and/or rehabilitation, then a low-acuity service should be considered.

Transfers requiring long distances

If a patient is deemed eligible for transfer, they should be moved to a selected service, irrespective of distance from their residence. If, however, the local team that triaged the patient believe that the transfer distance may impact on the patient's outcome then a decision may be taken to continue treat the patient at the local service until the patient is either safe to transfer or can be discharged.

It should be noted that, in the event of a significant regional outbreak, additional hospitals would be likely be incorporated into the model to accommodate local patients.

Specialist retrieval

Patients who require specialist retrieval teams should be managed in partnership with the relevant state coordination team. For example, transferring a neonatal, paediatric or maternity patient should be managed with PIPER (Paediatric Infant Perinatal Emergency Retrieval). If a patient requires specialist retrieval to achieve optimal outcomes, this type of transfer should be prioritised – as per current state guidelines.

Frequently Asked Questions

Should a COVID positive patient always go to a selected health service?

No, patients should be transferred to selected services if they require acute care and it is safe for them to be transferred. If a patient requires time-critical, urgent, intervention they should be taken to their closest appropriate health service. Local clinicians and Ambulance Victoria will determine the suitability of patients to move.

Why can't all health services manage COVID-19 patients?

The Department of Health acknowledges the work that health services in Victoria have undertaken since the beginning of the COVID-19 pandemic and recognises that all health services are currently equipped to treat and manage patients with COVID-19 safely. Using a select number of health services to manage patients with COVID-19 will: reduce the exposure of COVID-19 patients across the system, increase protections for patients, health care workers and visitors; mitigate risks of further COVID-19 transmission in the community; enhance the management of resources required for care for COVID-19 patients.

Are hospitals that not been selected to treat and managed COVID-19 patients safe?

Yes. Victorian hospitals provide some of the best care in the country and all health services are equipped to treat and manage COVID-19 patients. Only a small number of services have been selected as COVID prevalence in the community is low. Should this increase, further services will be selected to treat and manage COVID-19 patients.

Should I only go to a selected hospital's Emergency Department if I have COVID-19 symptoms?

No, all Victorian hospital's Emergency Departments have prepared themselves to treat and test patients who may have COVID-19. If you are found to have COVID-19 and require further admitted care, you may be transferred to a selected hospital.

Is transferring COVID positive patient safe?

For the majority of conditions, transferring patients between hospitals is safe and will not negatively impact their outcome. The state's retrieval teams are highly skilled and already facilitate the movement of complex patients across the state. During previous outbreaks, the state's ambulance teams were able to move patients with COVID effectively, while ensuring their own safety.

However, if the local attending health professionals and retrieval coordinators do not believe that a transfer of patient is appropriate – a patient may continue to be treated at their local service.

Appendix A: Patient Movement Flowcharts

Figure 2: Pathway for COVID+ patients in the community calling 000

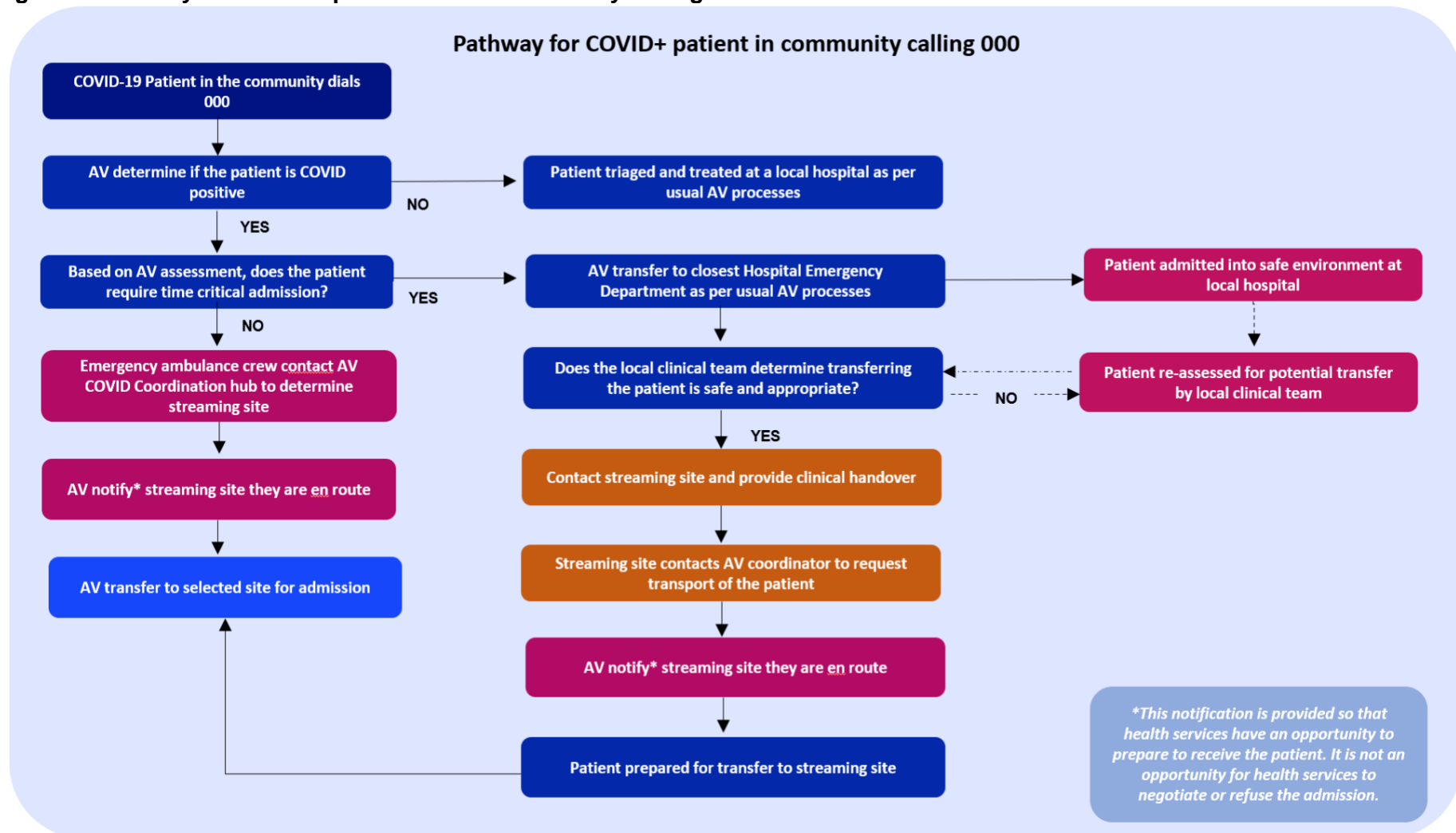


Figure 3: Pathway for organised hospital admissions

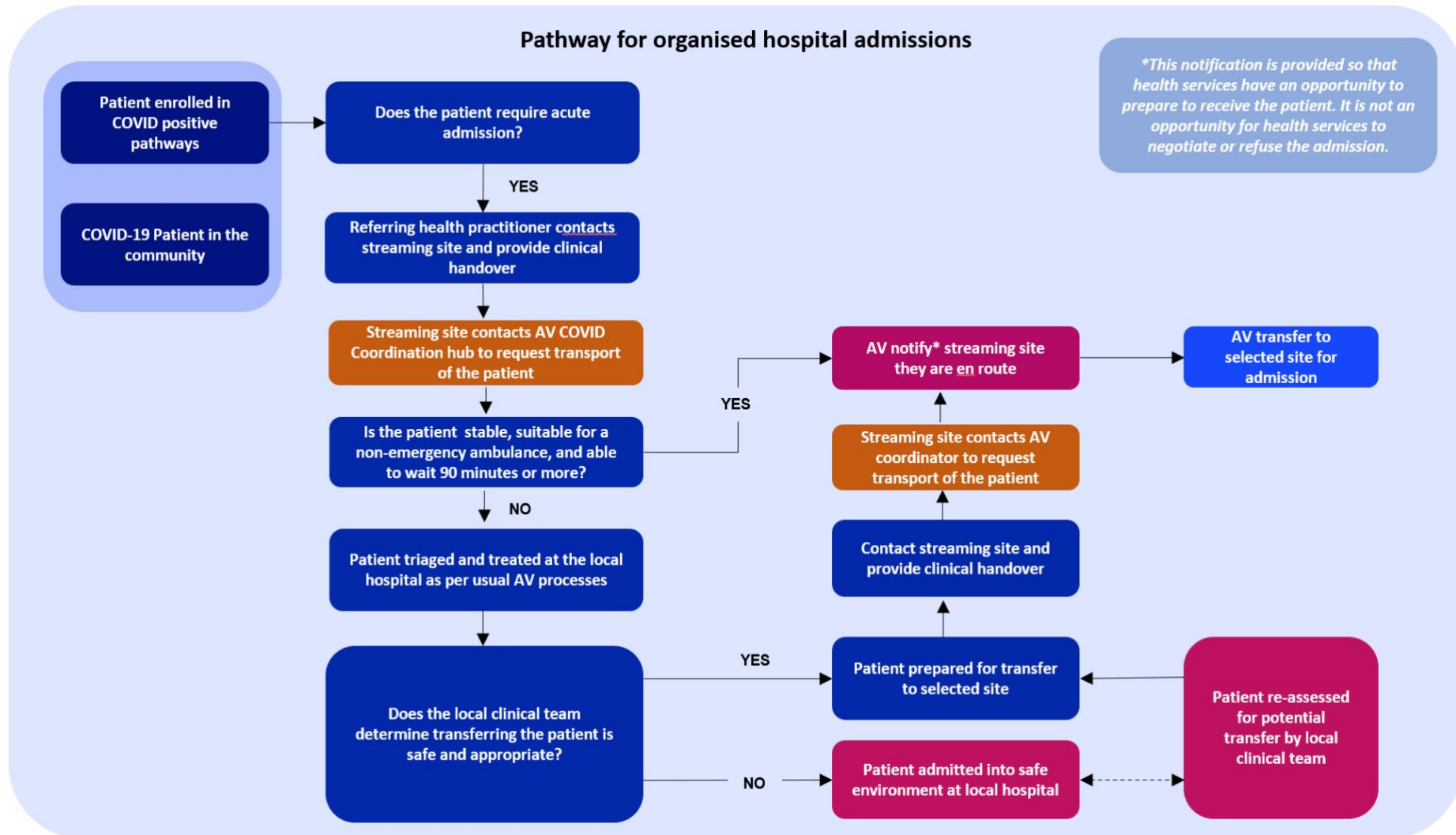


Figure 4: Pathway for hotel quarantine patients requiring hospital admission

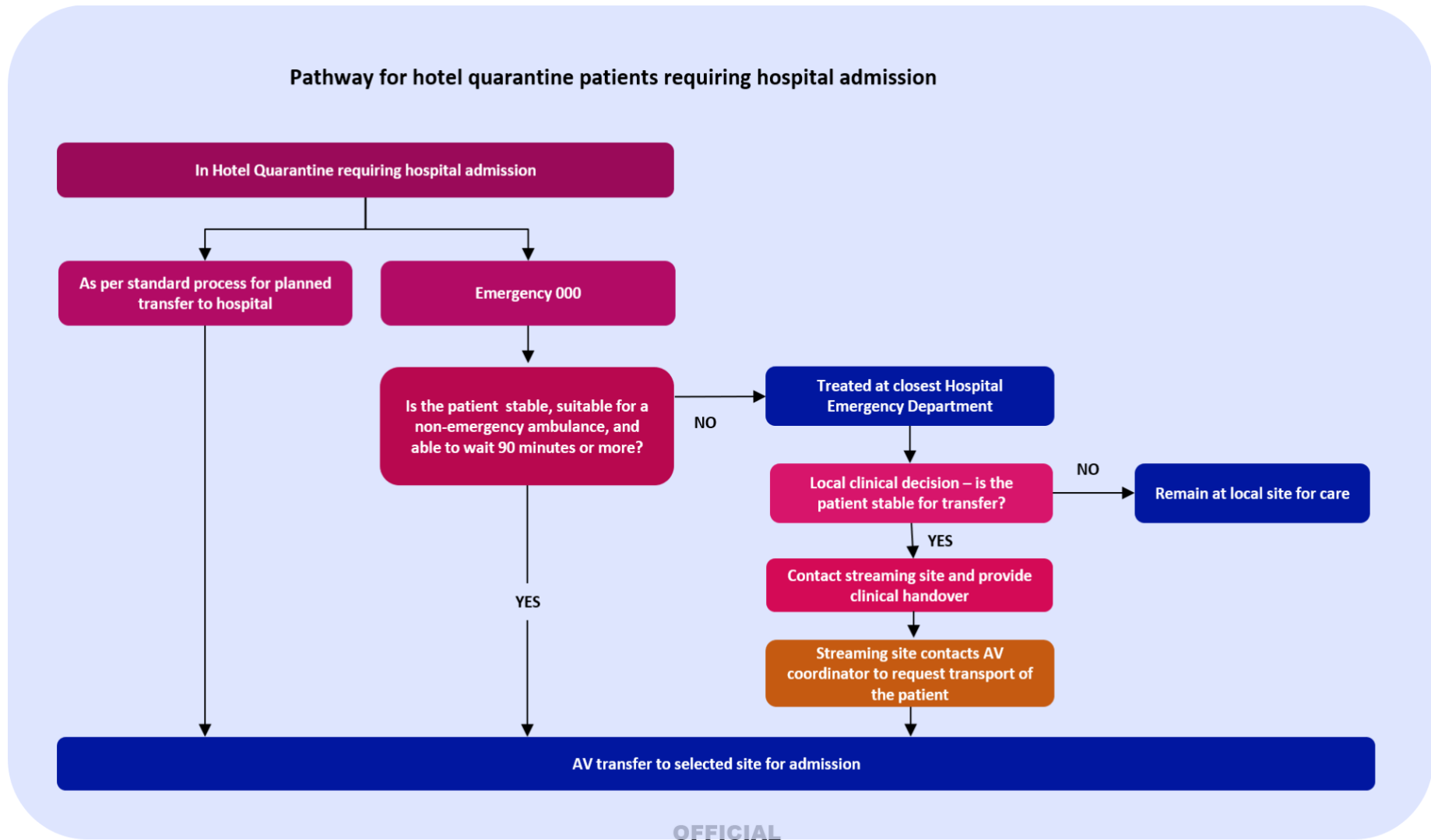


Figure 5: Pathway for ED and intra hospital transfers for COVID-19 patients requiring acute care

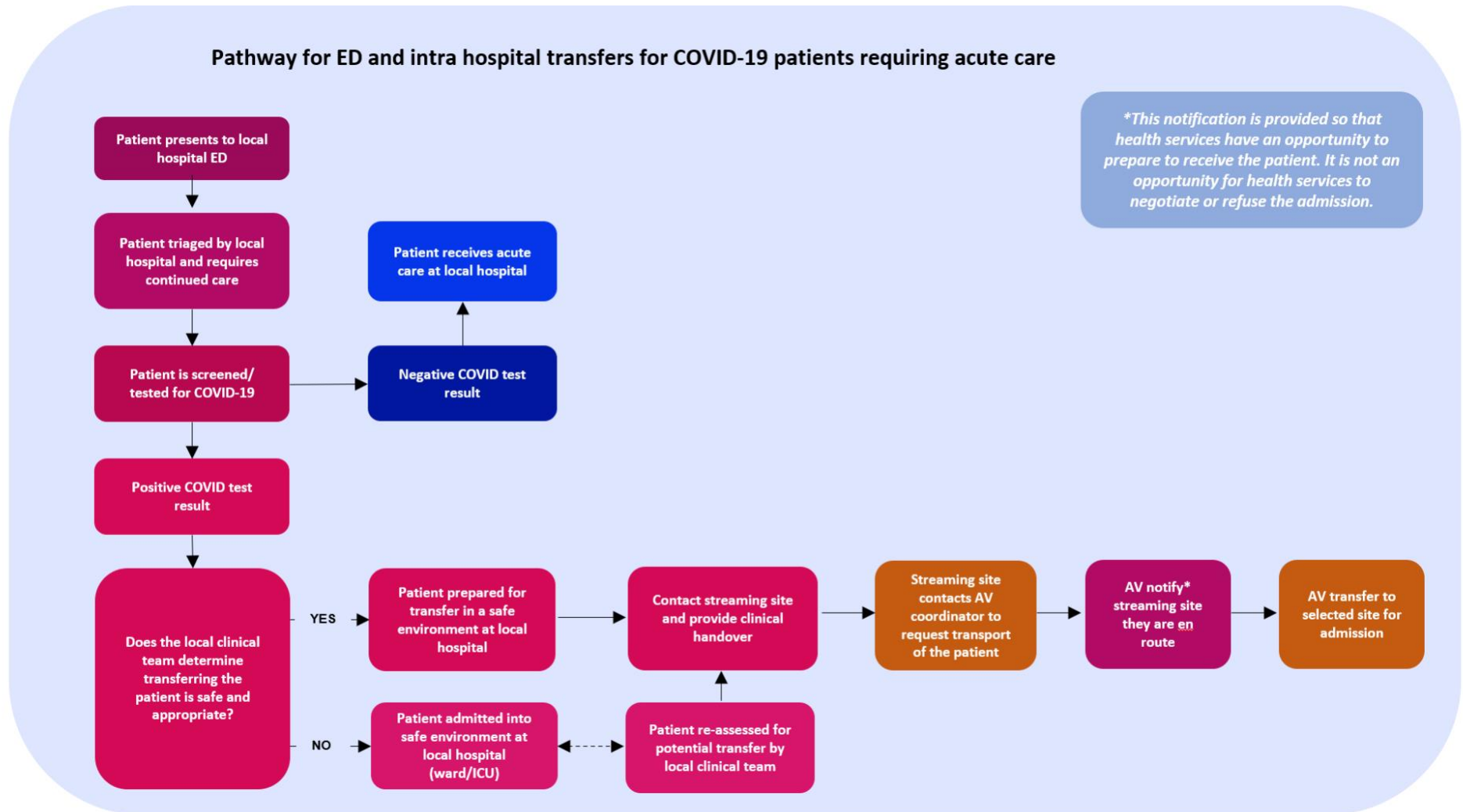


Figure 6: Pathway for patients that require acute admission

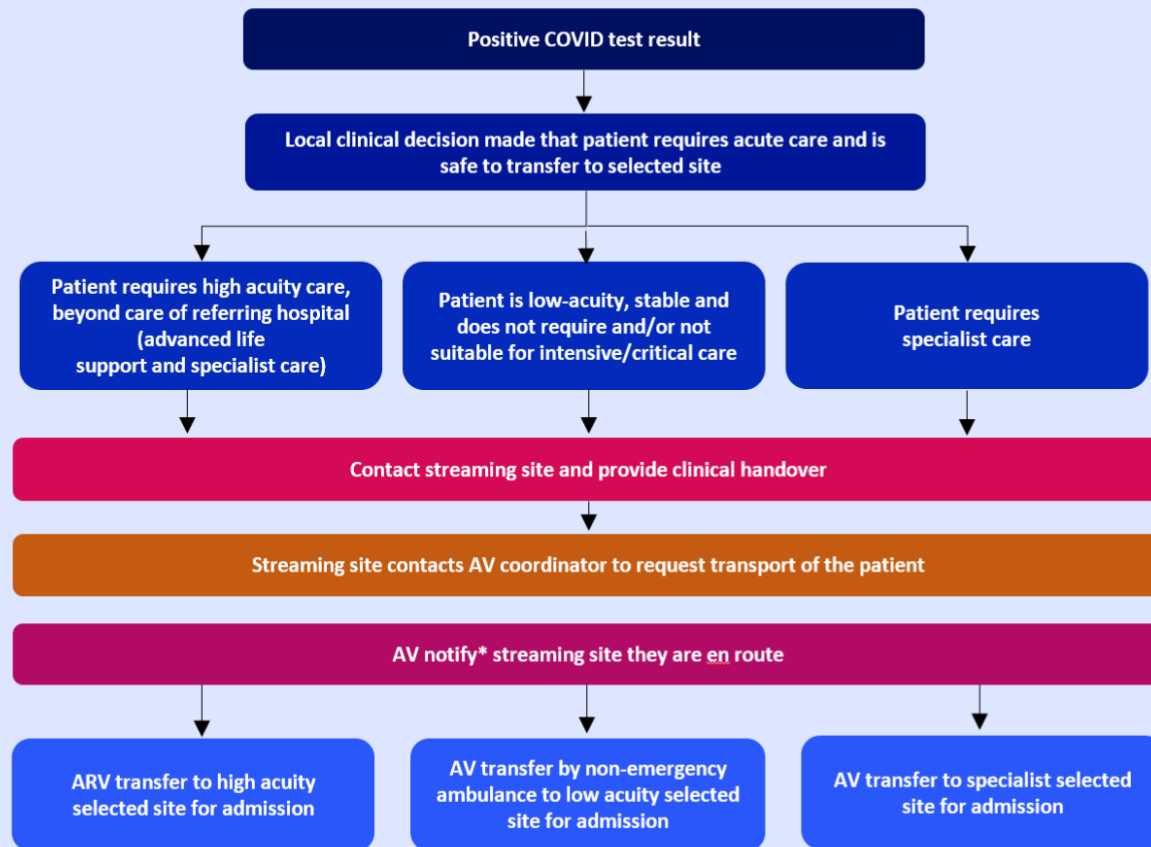
Pathway for patients that require acute admission

The selected sites involve a mixture of higher acuity tertiary sites and lower acuity sites to deliver care and treatment to confirmed COVID-19 patients.

Higher acuity sites will treat patients requiring the full spectrum of high acuity care, including advanced life support and specialist care.

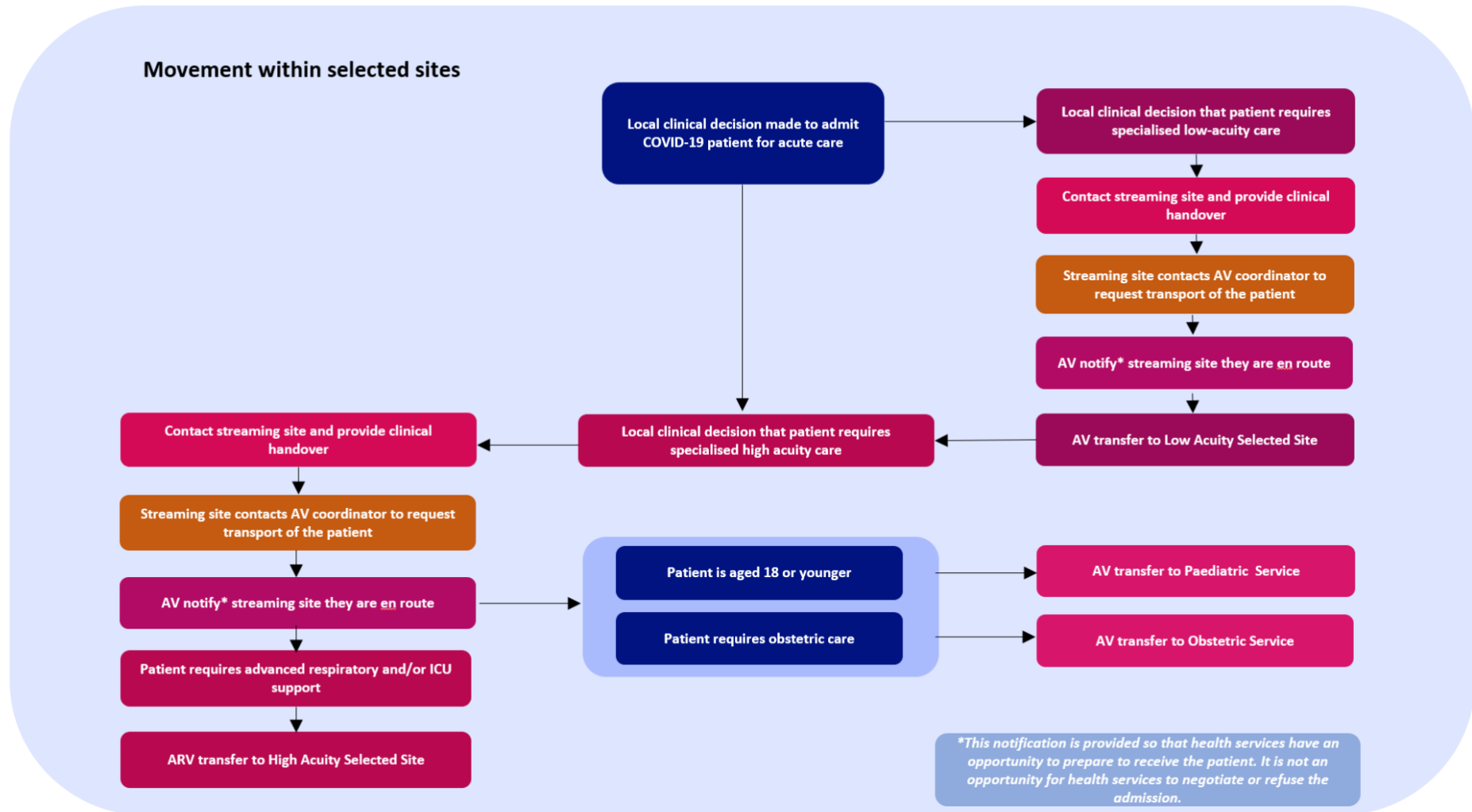
Lower acuity sites will be responsible for treating patients not requiring and/or not suitable for intensive/critical care.

**This notification is provided so that health services have an opportunity to prepare to receive the patient. It is not an opportunity for health services to negotiate or refuse the admission.*



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Figure 7: Movement within selected sites



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