

SESLHD PROCEDURE COVER SHEET



Health
South Eastern Sydney
Local Health District

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| EXECUTIVE SPONSOR or EXECUTIVE CLINICAL SPONSOR | Clinical Stream Director, Critical Care |
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| FUNCTIONAL GROUP(S) | Critical Care and Emergency Medicine Disaster Management |
| KEY TERMS | Seasonal influenza, Intensive Care Unit, Pandemic |
| SUMMARY | Describes the Critical Care Services key operational processes related to escalation, triage, alternative models of care, staff training and support, communication and coordination. |

COMPLIANCE WITH THIS DOCUMENT IS MANDATORY

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1. POLICY STATEMENT

As per [NSW Health Policy Directive PD2010_028 - Influenza Pandemic – Providing Critical Care](#), South Eastern Sydney Local Health District (SESLHD), winter bed strategy for critical care services includes an escalation plan and management of patients with suspected and/or confirmed influenza. The purpose of the procedure is to provide direction to the delivery of critical care services during an influenza pandemic. The escalation plan will enable critical care services to surge effectively during an influenza pandemic when demand for intensive care services exceeds normal supply.

Associated Policies and Guidelines

- [NSW Health Influenza Pandemic Plan - PD2016_016](#)
- [NSW Health Guideline GL2018_008 - Mass Vaccination Clinics during an Influenza Pandemic](#)
- [NSW Health Policy Directive PD2022_030 - Occupational Assessment, Screening and Vaccination Against Specified Infectious Diseases](#)

Agency for Clinical Innovation Intensive Care Community of Practice Resources:

- NSW adult intensive care services pandemic response planning
- Adult intensive care workforce report in COVID-19 pandemic
- ECMO during COVID-19
- Renal replacement therapy in the ICU during COVID-19 pandemic
- Intrahospital transfer of COVID positive and suspected COVID positive

COVID-19 & Infection Control Resources:**Clinical Excellence Commission Resources COVID-19:**

- COVID-19 Infection Prevention and Control Manual
- Respiratory Protection Program
- Health worker safety

2. BACKGROUND

Each winter, there is an increase in utilisation of critical care services related to influenza-like illness. As critical care capacity and ventilation devices are both a finite resource this procedure describes the key operational processes aimed at achieving an effective and equitable response to the need for intensive care services.

3. CRITICAL CARE ESCALATION PLAN

SESLHD adult critical care influenza escalation plan is based on [NSW Health Policy Directive PD2010_028 - Influenza Pandemic – Providing Critical Care](#). In addition to the LHD escalation plan:

- As part of the facility emergency /disaster management committee planning and infection control preparations, each healthcare facility controller is to ensure the facility is prepared for an increase in healthcare service demand as a result of influenza.
- Each facility will develop a local critical care influenza escalation plan to ensure that critical care services are able to surge effectively and that equitable access is maintained. To ensure currency the facility critical care influenza escalation plan should be updated on an annual basis, preferably by March every year (in preparation for the demand for critical care beds associated with influenza / winter).
- As part of the plan each facility must prepare an inventory of physical bed capacity and an inventory of equipment to inform the local and district response. Key information to revise annually in the facility escalation plan is listed in [APPENDIX A](#).
- Each healthcare facility controller, in conjunction with the Director of Intensive Care is to liaise and report to the Director of Clinical Services on critical care utilisation and as required liaise with SESLHD Health Services Functional Area Coordinator (HSFAC) and NSW Ministry of Health in relation to deployment or reallocation of health care resources.

4. RESPONSIBILITIES**4.1 Intensive Care Services will:**

- Monitor critical care service demand and advise Healthcare Facility Executive on need to implement the local influenza escalation plan. The trigger being either an increase surge in intensive care activity or an increase in influenza like cases.
- Provide advice on skills and competencies required for deployed workforce as per the SESLHD escalation plan.
- Consult with NSW Ministry of Health / NSW Intensive Care Services Network (during a mass pandemic where intensive care demand overwhelms capacity) and develop alternative models of care and advise Director of Operations and Facility Controller.
- Activate alternative model of care as directed by Director of Operations and Facility Controller.
- Appoint a critical care coordinator to collate information and provide reports to the Facility Controller, Director of Operations, LHD HSFAC and NSW Ministry of Health.

4.2 Facility General Managers and Facility Controllers will:

- Ensure each facility's Critical Care Influenza escalation plan is annually revised.
- Activate healthcare facility Critical Care Influenza Escalation plan
- Liaise with Facility Patient Flow Manager about bed management in particular prioritising ward transfer for any intensive care patient cleared for ward transfer

- Monitor and provide updates to the Director of Nursing and Midwifery on resource utilisation and surge activity as per the critical care influenza escalation plan.
- Develop strategies to redeploy resources to maintain essential services and meet pandemic services requirements.
- Receive advice from Director of Nursing and Midwifery (according to escalation phase) re authorising opening additional beds, redeployment of additional staff, deferring elective surgery.
- Liaise with Private Health care facilities.

Note: The responsibilities described will change when NSW HEALTHPLAN is activated. Following activation of HEALTHPLAN, all NSW Health and other health service resources including personnel will be available to the State Health Services Functional Area Coordinator (HSFAC) for the purposes of this plan. As intensive care units resources are currently managed on a state-wide basis via the Aero-medical Retrieval Service, the State Medical Commander is expected to undertake this responsibility under the direction of the State HSFAC.

5. DEFINITIONS

Patient Flow Portal: NSW web based information system which provides an overview of ICU bed availability across NSW including intensive care bed status, estimated date of discharge, requests for ward transfer, nursing dependency and mechanical ventilation status.

Healthcare Facility Controller: Nominated position at a healthcare facility level responsible for emergency management planning and operations. The Healthcare Facility Controller is the initial point of contact within a healthcare facility for an emergency and notifies the healthcare facility Executives and LHD HSFAC of any emergencies that may require a LHD coordination or support.

HEALTH PLAN: is the NSW Health Services Functional Area Supporting Plan (NSW HEALTHPLAN) to support the NSW State Emergency Management Plan (EMPLAN).

Health Services Functional Area Coordinator (HSFAC): An appointed position at Local Health District level that has the delegated authority of the LHD Chief Executive to coordinate and commit LHD resources for the response to, and recovery from, an emergency. The LHD HSFAC is the initial point of contact within a Local Health District for an emergency and notifies the State HSFAC of any emergency that may require State-level coordination or support under the NSW HEALTHPLAN.

Local Health Districts (LHD): established under the Health Administration Act 1982 to provide health services to the residents within their geographical boundaries. A Local Health District is responsible for the administration of NSW Health's policies and responsibilities within those geographical boundaries.

Surge Capacity: The maximum patient load that a hospital or medical system can handle. During a health emergency, hospitals must convert quickly from their current care capacity to surge capacity. Surge capacity is managed through a re-prioritisation of health care needs to provide essential services to mass casualties or increased presentations in

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a pandemic e.g. cancellation of elective surgery, diversion of patients with minor complaints or early discharge of hospitalised patients.

6. PROCEDURE

6.1 SESLHD Intensive Care Services Influenza Escalation Plan

- Severe influenza pandemics will have a substantial impact on intensive care resources ([PD2010_028 - Influenza Pandemic – Providing Critical Care](#)). The following Plan provides an escalation process based on a phased increase in demand for intensive care bed, workforce and equipment.
- The surge levels correspond to strategies that should be considered to meet an increase in demand.

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SESLHD Intensive Care Services Escalation Plan

| Surge Level | Strategy | Responsibility | Escalation of Issues | Notes |
|---|--|--|----------------------|--|
| 1.Pre-Surge ICU occupancy close to 100% of funded bed capacity | Normal | | | |
| Communication and Coordination | Usual communication & escalation processes to ensure effective critical care bed usage | Facility IC Director/NM & Patient Flow Manager | | Infectious disease alerts http://www.health.nsw.gov.au/Infectious/alerts/Pages/default.aspx |
| Creating ICU Capacity | All funded ICU/HDU beds are operational Exit blocked patient/s are prioritised for ward transfer | Facility IC Director and NM/NUMs and Facility patient flow manger. | Facility Executive | Patient Flow Portal: ICU bed status is updated as changes occur or at least every 4 hours. |
| Workforce Protection | Annual Influenza vaccination program Refer to Facility Critical Care Influenza Escalation plan for the process of managing and treating clinical and non clinical ICU staff with symptoms of influenza. | Facility IC Director and NM/NUM | | NSW Health Policy Directive PD2022_030 - Occupational Assessment, Screening and Vaccination Against Specified Infectious Diseases |
| Workforce | Identify staff with critical care skills or experience who could be deployed to ICU/HDU (i.e. staff with previous critical care experience / RNs who have rotated through critical care) | DON in conjunction with ICU NM/NUM | | |
| Critical Care Inventory | Identify /develop a facility inventory of bed spaces that could accommodate a ventilated intubated patient (i.e. recovery, peri-operative) | DON in conjunction with Facility Equipment Officers and/or Intensive Care Equipment Managers | | NSW Health Policy Directive PD2010_028 - Influenza Pandemic - Providing Critical Care |

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| Surge Level | Strategy | Responsibility | Escalation of Issues | Notes |
|--------------------------------------|--|--|----------------------|---|
| | Develop and maintain a facility inventory of essential critical care equipment | Intensive Care Equipment Managers | | |
| Education Resources | Develop fast track critical care core learning resource for supplementary non-ICU trained staff deployed to ICU. | ICU Educators | ICU NM/NUM | ICU learning resource to include: <ul style="list-style-type: none"> • ABCDEFG • Hypoxia & O2 therapy • Mechanical ventilation • Hemodynamic monitoring • Arrhythmia interpretation • Standard Infection Prevention Precautions |
| Infection Control | Clinical staff and support staff to be competent in donning and removing PPE | ICU Educators and Infection Prevention and Control staff | | NSW Health Policy Directive PD2017_013 - Infection Prevention and Control Policy |
| | Fit testing of P2 masks for all staff required to wear PPE. Maintain register of all staff trained in the above. | Facility IC Director and NM/NUM | | Respiratory Protection Program Manual (Version 1.2) (nsw.gov.au) Fit testing is recommended for HWs working in high-risk areas where they provide care to patients with an airborne disease or may be at additional risk of exposure to airborne respiratory pathogens. |
| | In preparation for winter ensure all critical care staff (category A staff) are vaccinated for influenza | Facility IC Director and NM/NUM | | NSW Health Policy Directive PD2022_030 - Occupational Assessment, Screening and Vaccination Against Specified Infectious Diseases |
| Waste Management and Cleaning | Usual cleaning arrangements appropriate to critical care environments. | Environmental Cleaning Mangers and ICU NM/NUMs | | Cleaning protocol should include frequency and method of environmental decontamination |

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| Surge Level | Strategy | Responsibility | Escalation of Issues | Notes |
|--|--|---|----------------------|---|
| Security | Normal arrangements | | | |
| 2. Surge 5-10% over funded ICU Bed base | Minor Surge | | | |
| Communication and Coordination | Provision of influenza status updates outlining issues and facility response to critical care bed demand. | GM / ICU Director | | NSW Health Influenza preparedness website / Influenza alert & recent incidents |
| | Increase in frequency of Public Health Reporting Emergency Department Surveillance data i.e. Emergency Department daily flu presentations | Biopreparedness Epidemiologist Public Health Unit | | |
| Creating Intensive Care Bed Capacity | Open additional non-commissioned ICU bed spaces Commence early discharge of patients to home care where appropriate Liaise with private health facilities to put cooperative service agreements on alert | Director of Clinical Services in conjunction with ICU Director ICU Director/On duty Intensivist MOH/Chief Executive/ General Managers | | NSW Health Policy Directive PD2010_028 - Influenza Pandemic - Providing Critical Care |
| Workforce Protection | ICU staff absenteeism monitored by line manager | DON In consultation with ICU NM/NUM | | |
| Increasing Workforce | Increase nursing workforce to meet demand. | DON | | 1 x additional ICU bed per week equates to 14x 12 hr nursing shifts |
| Inventory | Ensure availability of ventilator and other consumables to meet demand in activity. | ICU Director & ICU Equipment Manager | | |

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| Surge Level | Strategy | Responsibility | Escalation of Issues | Notes |
|---|---|--|----------------------------------|---|
| Workforce Education | Continue education sessions for supplementary nursing staff identified for deployment to ICU. Continue education for cleaning and support staff. | ICU Educators | ICU NM/NUM | |
| Infection Control | Isolate influenza patients if possible or cohort infectious patients. Avoid nebulisation of medications in infectious patients | ICU Director and NM/HDU & Infection Prevention & Control staff | | |
| Waste Management and cleaning | Increase cleaning and waste collection schedules | ICU NM and Environmental Cleaning Managers | | |
| Security | Review normal requirements, plan to increase service when required | | | |
| 3. Surge 11-20% over funded ICU bed base | Moderate | | | |
| Communication | Increase communication strategies. Regular staff briefings. | General Managers | | |
| Creating ICU Bed Capacity | Where clinically appropriate defer complex elective surgery requiring post op ICU/HDU management. | ICU Director, Surgeons, facility Executive | LHD Executive SESLHD HSFAC | Estimated planned ICU activity equates to 30% of all ICU activity (NSW Health/Health Information Exchange 2007/08). |
| | Progressively convert HDU beds to ICU beds | ICU Director/NM | | |
| | Activate Facility Surge Plan to convert non ICU areas (capable of managing ventilated patients) to satellite ICUs i.e. recovery, peri-operative and respiratory units). | ICU Director and NM/NUM, Facility Executive | | |
| | Consider private sector for non- | Directors of Clinical | | |

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| Surge Level | Strategy | Responsibility | Escalation of Issues | Notes |
|---|--|--|---|--|
| | deferrable surgical patients | Services Facility Surge Plan | | |
| Workforce Protection | Assessment and triage/admission of front line clinical staff with symptoms of influenza | Designated medical admissions officer | | MOH protocols |
| Increasing Workforce | Deploy nursing staff from peri-operative areas Continue fast track education sessions for non ICU trained staff | Facility Surge Plan DONs in conjunction with NUMs from affected clinical areas with input from ICU. | Directors of Operations | 14x (12 hour) shifts per week required for each HDU bed converted to an ICU bed. <i>Staffing to be sourced from existing Excess staff in anaesthetics, operating theatres, recovery, casual pool, ICU staff who have relinquished annual leave, staff deployed from non-essential services with reduced activity, extra hours & overtime.</i> |
| Inventory | Deploy ventilators from other clinical areas. Identify any shortfall in ventilators. Ensure sufficient quantity of ventilator consumables stocked. | ICU Director and ICU Equipment Manager | Healthcare Facility Controller SESLHD HSFAC | NB Transport Oxylog ventilators not suitable for patients with respiratory failure. |
| Education | Continue education for non-ICU trained/experienced staff. Continue education of ICU cleaning and support staff | ICU Educators | ICU NM/NUM | |
| Infection Prevention and Control | On-going application of infection prevention and control procedures. Plan strategies to cohort infectious and non-infectious patients within satellite ICUs | ICU Director, facility Executive, Infection Prevention and Control staff | | |
| Waste Management and Cleaning | Increase cleaning schedules and waste collection frequency. Priority given to ICU for Environmental cleaning | Environmental Cleaning Managers and ICU NM/NUMs | | |
| Security | Review normal requirements, plan to increase service when required | | | |

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| Surge Level | Strategy | Responsibility | Escalation of Issues | Notes |
|---|---|---|---|-------|
| 4. Major Surge 21-50% over funded ICU bed base | Facilities are at Max Capacity | | | |
| Communication | Daily staff briefings | General Managers | | |
| Creating ICU Bed Capacity | Utilise all clinical areas that could be converted for management of ICU patients such as recovery and peri operative units | DON in conjunction with NUMs from affected clinical areas with input from ICU manager | | |
| | Defer clinically appropriate elective surgery and other elective procedures | ICU Director, Surgeons, facility Executive | | |
| Workforce Protection | Ensure strict adherence with infection prevention precautions | Infection Prevention and Control staff | | |
| Increasing Workforce | Deploy all available nursing staff to satellite ICU areas | DON | | |
| Inventory | Escalate the number of projected equipment shortfalls. | ICU Director & ICU Equipment Manager | Healthcare Facility Controller SESLHD HSFAC | |
| Education | On-going as required | ICU Educators | ICU NM | |
| Infection Control | On-going application of infection control procedures | ICU Director, NM/NUMs, Infection Prevention and Control staff | | |
| Waste Management and Cleaning | Cleaning and waste collection frequency to increase. | Environmental Cleaning Managers and ICU NM/NUMs | | |
| Security | Review normal requirements, plan to increase service if required | | | |

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| Surge Level | Strategy | Responsibility | Escalation of Issues | Notes |
|--|---|---|----------------------|---|
| 5. Large Scale Surge Emergency > 50% | Exceed Capacity | | | |
| All Available Resources are in Use | Implement Three Tier Triage only on directive from NSW Health / SESLHD CE 1) Allocation 2) Withdrawal 3) Dispute resolution process | 1) Referring speciality i.e. ED or ward in consultation with ICU clinicians 2) ICU Consultant and 1 other medical officer 3) LHD or State TBA | | NSW Health Policy Directive PD2010_028 - Influenza Pandemic – Providing Critical Care |
| Workforce Protection | Continue strict adherence with infection prevention precautions | Infection Prevention and Control staff / ICU Educators | | |
| Nursing Workforce | Deploy all available nursing staff to satellite ICU areas Staffing at baseline profile as per NSW Health PD 2010_028 Influenza Pandemic – Providing Critical Care Adjustment models of care and rostering to maintain best possible skill ratio | SESLHD Executive SESLHD HSFAC ICU with support from DON | | |
| Inventory | Monitor stock level. Prepare to adjust usual standards in relation to frequency of changing ventilator circuits | Intensive Care Equipment Nurse Managers/ NUM | | |
| Education | Continue as required | | | |
| Infection Control | On-going application of infection control procedures | ICU Director, NM/NUMs, Infection Prevention and Control staff | | |
| Waste Management and Cleaning | Cleaning and waste collection frequency to increase. | Environmental Cleaning Managers and ICU NM/NUMs | | |
| Security | Security presence at access points and ICU | Facility Plan | | |

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Additional Resources:

- Collecting Nose and Throat Swabs for Testing – [Collection resources](#)
- [NSW Health Policy Directive PD2017_013 - Infection Prevention and Control Policy](#)
- [NSW Health Infection Control Resources](#) (PPE advice, posters, facility entrance signage)
- Australian Department of Health - Immunise Australia – [Influenza immunisation resources](#)
- Australian Department of Health - [Influenza information page](#)
- [NSW Health Public Health Unit Influenza Control Guidelines](#)
- [NSW Health Policy Directive PD2010_028 - Influenza Pandemic – Providing Critical Care](#)

7. AUDIT

Critical Care Coordinator to maintain and monitor data base nominated by NSW Health e.g. FlulCU, ANZIC Research Centre database.

8. REFERENCES

[NSW Health Policy Directive PD2010_028 - Influenza Pandemic – Providing Critical Care](#)
[NSW Health Policy Directive PD2017_013 - Infection Prevention and Control Policy](#)

9. REVISION AND APPROVAL HISTORY

| Date | Revision No. | Author and Approval |
|---------------|--------------|--|
| 24/05/2010 | Draft | Draft procedure developed and based on NSW Health Guidelines for the provision of Critical Care in Response to Influenza Pandemic and draft SESIH Intensive Care Influenza Pandemic Surge Plan - circulated to Program Coordinator Intensive Care Services and Clinical Stream Manager Critical Care and Emergency to review and provided comments |
| 02/06/2010 | Draft | Draft procedure revised to incorporate new NSW Health policy directives and guidelines – circulated to Area ICU Executives and Nursing Committees to review and provide comments |
| 30/07/2010 | Draft | Draft procedure place on SESIAHS intranet for comment |
| 1/12/10 | 0 | Endorsed by Area Patient Safety & Clinical Quality Committee Noted by Area Clinical Council |
| 14/3/2013 | 0.1 | Procedure reformatted using the SESLHD and sent to District Pace Manager / ICU Program Manager |
| 15/4/2013 | 0.2 | District Pace Manager / ICU Program Manager circulated procedure to SESLHD ICU NUMs and Directors for review and comment. |
| 9/5/2013 | 0.2 | Procedure placed on SESLHD intranet for broader consultation |
| 15/8/2013 | 1 | Approved by SESLHD Disaster Management Committee |
| October 2015 | 2 | Review by Clinical Stream Manager Cardiac/Respiratory and Intensive Care and endorsed by Executive Sponsor |
| May 2018 | 3 | Minor review relating to number of ICU beds, ventilators which have been adjusted to reflect annual changes – endorsed by Executive Sponsor. |
| June 2018 | 3 | Processed by Executive Services prior to publishing. |
| January 2022 | 4 | Minor review to update references and include links to ACI and CEC guidelines. Approved by Executive Sponsor. |
| 3 August 2023 | 4.1 | References and links updated. Appendix amended from fit checking to fit testing of N95 masks |

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APPENDIX A

The following key information should be incorporated into the facility critical care surge plan and updated annually:

Inventory of Critical Care Capacity & Equipment – SESLHD

| Site – Public Facilities | POWH | RHW | SGH ICU 1 | SGH ICU 2 | TSH |
|---|---------|-----|-----------|-----------|---------|
| Unit Description | ICU/HDU | HDU | ICU | HDU | ICU/HDU |
| Number of Commissioned ICU /HDU Beds | | | | | |
| Total Bed Capacity of Unit | | | | | |
| Total Number of Isolation Rooms | | | | | |
| Number of Negative Pressure Isolation Rooms | | | | | |
| Total Number of standard invasive ventilation devices | | | | | |
| Total number of non-ICU ventilation devices e.g. transport ventilators | | | | | |
| Total number of non-ICU ventilation devices e.g. anaesthetic machines | | | | | |
| Total number of additional potential bed spaces in the facility that are equipped to provide safe ventilation (exclude ICU / HDU). List location and corresponding bed number | | | | | |
| List of nursing staff employed in the facility with critical care experience that could be deployed to care for a ventilated patient | | | | | |