

Royal Hospital for Women (RHW)
BUSINESS RULE
COVER SHEET



Health
South Eastern Sydney
Local Health District

Ref: T23/64148

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SUMMARY	This CBR aims to facilitate the early recognitions and management of the deteriorating patient by utilising the Clinical Emergency Response System.
Key Words	Clinical Emergency Response System (CERS)

**Clinical Emergency Response System (CERS) –
Management of the Deteriorating Patient**

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This Clinical Business Rule (CBR) is developed to guide safe clinical practice at the Royal Hospital for Women (RHW). Individual patient circumstances may mean that practice diverges from this Clinical Business Rule. Using this document outside RHW or its reproduction in whole or part, is subject to acknowledgement that it is the property of RHW and is valid and applicable for use at the time of publication. RHW is not responsible for consequences that may develop from the use of this document outside RHW.

Within this document we will use the term woman, this is not to exclude those who give birth and do not identify as female. It is crucial to use the preferred language and terminology as described and guided by each individual person when providing care.

1 BACKGROUND

Failure to appropriately recognise, respond, and manage acute deterioration is associated with adverse patient outcomes. This clinical business rule aims to facilitate the early recognition and management of the deteriorating person by utilising the Clinical Emergency Response System (CERS).

N.B For mental health deterioration, please refer to [RHW Mental Health Escalation – Maternity and Gynaecology - inpatient / outpatient](#)

CBRs For neonates, please refer to:

[SESLHDPR/340 Management of the Deteriorating Neonatal Inpatient.](#)

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[RHW Neonatal CERS – Management of the Deteriorating NEONATAL inpatient \(CERS\)](#)

[RHW Deteriorating neonate – Recognition and management of the neonate who is Clinically Deteriorating outside of the Newborn Care Centre](#)

2 RESPONSIBILITIES

2.1 All Clinical staff (including nursing and midwifery, allied health, and medical teams)

- Activation of local CERS escalation pathway
- Escalate care of deteriorating patient as per:
- [PD2025 014 Recognition and Management of Patients who are Deteriorating](#)
- [SESLHDPR/705 Management of the Deteriorating MATERNITY woman](#)
- [SESLHD/697 Management of the Deteriorating ADULT inpatient \(excluding maternity\)](#)
- Conduct a systematic physical assessment inclusive of mental state (A-I assessment)
- Initiate appropriate clinical care within scope of practice
- Document any actions interventions and escalation in the patients' health care record
- Increase monitoring of vital signs when there is evidence of deterioration
- Complete appropriate CERS forms
- Involve and inform women, family and carers in assessment and how to escalate any concerns related to deterioration and associated outcome
- Complete mandatory training as per My Health Learning
- Escalate an RHW Adult Code Blue call for all outpatients, members of the public, visitor or staff and/or Prince of Wales Hospital (POWH) Adult Code Blue (if required)

2.2 Medical Staff

- Ensure any alterations to calling criteria are reviewed for appropriateness and formally authorised
- Document assessment, intervention, management plan and outcome in eMR. Document in eMR notes.

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3 PROCEDURE

3.1 Assessment of Deterioration

All nursing and midwifery staff should observe and document daily any changes in a woman's cognitive function, perception, behaviour, or emotional state. These changes may be characterised by an acute or gradual change in mental state. Assess and incorporate mental state changes as part of A-I systematic assessment and escalate any changes from the woman's baseline using CERS. Referral to specialist teams and retrieval services if required.

Minimum requirements for vital sign monitoring are outlined by [NSW Health Policy Directive 'Recognition and management of patients who are deteriorating' PD2025_014](#)

A copy of these requirements can be found in Appendix 3: Minimum number and frequency for vital sign observation

3.2 Activating a CERS Call

Dial '2222' from any phone in the hospital

- Request appropriate level of escalation (Clinical Review, Rapid Response, Adult or Neonatal Code Blue, Paediatric Code Blue)
- State exact location
- State the Admitting Medical Officer (if a CERS call is activated in Birth Unit, state admitting Obstetric Consultant).
- This activation is determined by deviations from:
 - Standard Maternity Observation Chart (SMOC)
 - SMOC chart is recommended for all pregnant women and up to six (6) weeks post pregnancy including any perinatal loss
 - Standard Adult Observation Chart (SAGO)
 - Standard Paediatric Observation Chart (SPOC)
 - Standard Neonatal Observation Chart (SNOC)
 - A CERS call **MUST** be made via switch, including when the medical team is already present

3.3 Clinical Review (Yellow Zone)

A CERS Call is not mandatory for an isolated observation in the Yellow Zone of the SMOC/SAGO/SPOC/SNOC chart. If an observation falls into the Yellow Zone, a senior nurse/midwife must be consulted

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- If the senior/midwife determines that a Clinical Review is not required:
 - Consideration should be given to increasing the frequency of observations as indicated by the woman's condition
 - include intervention reverse and/or halt deterioration
 - Findings of A-I assessment, nursing/maternity intervention and reason for non-escalation should be documented in the patient healthcare record.
- If the senior nurse/midwife determines that a Clinical Review is required:
 - Follow the CERS escalation pathway

Activation of a Clinical Review prompts a **30-minute response time**

- Two or more observations are in the yellow zone
- A staff member, patient, family and/or carer is concerned

Medical responders to a Clinical Review will be the Admitting Medical Team Resident

- Two or more Clinical Reviews within eight (8) hours; a Registrar must review the patient
- No response to a Clinical Review call, please activate a Rapid Response

3.4 Rapid Response (Red Zone)

Activation of a Rapid Response prompts a 5-minute response time. Activation of a Rapid Response MUST occur if:

- A patient has observations in the **red zone**
- A woman requires a 30-minute or 60-minute emergency caesarean section – **refer to RHWCLIN066 [Caesarean Birth - Maternal Preparation and Receiving the Neonates](#)**

Medical Response will consist of:

- Admitting Medical Team Registrar (in-hours) or rostered Registrar (after hours)
- Anaesthetists (rostered to respond to Rapid Response and Code Blue calls at RHW)

If a Rapid Response call is activated, whilst another CERS call is ongoing; the team responding to the initial call conducts a clinical assessment and negotiate who is the most appropriate person to remain with the patient. The rest of the team members will attend the second CERS call

Discussion regarding management plan with the Admitting Medical Officer (AMO) should occur if there are 2 or more Rapid Response calls as soon as practicable

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3.5 Clinical Escalation of Abnormal Fetal Monitoring

RHW Clinical Emergency Response System (CERS) - Management of the Deteriorating Patient will align with the Clinical Excellence Commission's Between the Flags criteria and local CERS processes as per [GL2025_004 NSW Health guideline for Fetal Heart Rate \(FHR\) Monitoring](#).

[GL2025_004](#) provide the following:

- Guidance for antenatal and intrapartum FHR monitoring as a welfare assessment tool.
- Definitions of FHR features
- Criteria for intermittent and/or continuous monitoring
- Algorithms for the interpretation of antenatal and intrapartum FHR patterns
- Clinical management strategies for consultation and escalation
 - Clinical decisions should rely on comprehensive assessment rather than FHR patterns alone.

3.6 Abnormal Yellow Zone – One Yellow Zone Feature

As per EFM algorithm interpreted cardiotocograph (CTG) featured in the Yellow Zone requires a Clinical Review within 30-minute response time

- Escalate to the Midwifery Team Leader
- Initiate CERS response – “Fetal Clinical Review”
 - Medical Officer required for Review
 - Following Medical review, ensure a documented care plan is In place

3.7 Abnormal Red Zone – Two or more Yellow Zone Features or one Red Zone Feature

As per EFM algorithm interpreted (CTG) features in the Red Zone requires a Rapid Response for an immediate review within 5-minute response time

- Escalate to the Midwifery Team Leader
- Initiate appropriate clinical care and identify any reversible causes
- Initiate CERS response - “Fetal Rapid Response”
 - Medical Officer required for immediate review
 - Following Medical review, ensure a documented care plan is in place
 - Consider transfer of woman within the hospital to a higher level of care (e.g. Birthing unit and/or Operating Theatres).

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3.8 Clinical Care Considerations

As per GL2025_004 A EFM should be reviewed contemporaneously by a second clinician i.e team leader/ senior clinician

- In instances where the two clinicians are not in agreement with their assessment, escalation for a CERS Fetal Clinical Review is required

3.9 Code Blue (Life Threatening)

Activate a Code Blue Immediate Response for:

- Patients with **any potentially life- threatening condition**, such as cardiac/respiratory arrest, airway obstruction, stridor, threatened airway, seizures (new or prolonged), or suspected stroke. Refer to Appendix 8: Management of patients with suspected or identified acute stroke symptoms at RHW flowchart
- Serious concern by staff member, patient, family and/or carer
- If there has been no response to a Rapid Response call
- Any non-admitted woman, visitor, or staff member who requires medical assistance

Medical Responders to a Code Blue will consist of:

- Admitting Medical Team Registrar (in-hours) or rostered Registrar (after hours)
- Anaesthetists (rostered to respond to Rapid Response and Code Blue calls at RHW)
- All medical staff should attend as able Additional Responders to a Code Blue include:
- CERS Clinical Nurse Consultant (CNC) – in hours
- COU CNC – in hours
- Access Demand Manager (ADM) / After Hours Nurse Manager (AHNM)
- Porter

Activate **RHW Adult Code Blue by dialling ‘2222’ and request a RHW Adult Code Blue**

- **Escalate to POWH Adult code blue team simultaneously in the RHW Adult code Blue initial call for a cardiac arrest**
- **Escalation to the POWH Adult Code Blue team can be activated by dialling ‘2222’ again and requesting the ‘POWH Adult Code Blue Team’, including the exact location.**
- It is advised to have a staff member direct the POWH/ team in from the elevators. With staff able to view both lift banks.

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- Escalation to **Sydney Children's Hospital Network (SCHN) Paediatric Code Blue team (any child under 16 years of age)** can be activated by dialling '2222' and request a **Sydney Children's Hospital Paediatric Code Blue**, including the exact location
- It is advised to have a staff member direct the Sydney Children's Hospital team to the location. With staff able to view both lift banks.
- Provide clinical handover to the responding teams using ISBAR (Introduction, Situation, Background, Assessment and Recommendation).
- Perform an A-I assessment, unless the patient is in Cardiac Arrest, whereby commence Basic Life Support until specialist team arrives.
 - For Basic life support Please refer to [ANZCOR guidelines Basic Life Support](#).
 - For Advanced life support please refer to [ANZCOR guidelines Advanced life support within scope](#).
- If required, a maxi lifter is in Macquarie Ward or slide lifter located next to the emergency trolley at admissions, to lift person from the floor to a bed or trolley
- If an acute stroke is suspected, a Rapid Response (or Code Blue if life threatening criteria present) call must be activated, and the patient assessed immediately.
- If the patient is deemed safe for transfer, the patient must be transferred to POWH Emergency Department (ED) for urgent assessment by the Neurology team. POW ED CNUM must be informed of the immediate transfer **on 0428 652 614**. Please refer to Appendix 8: Management of patients with suspected or identified acute stroke symptoms at RHW flowchart.
- If chest pain is present or Myocardial ischemia is suspected, follow the RHW Chest pain algorithm in Appendix 10.
- If Acute Anaphylaxis is suspected, please refer to [NSW Health Guideline SESLHDGL/125 Acute Anaphylaxis Management](#) and refer to Appendix 11 for Australian Resuscitation Council (ARC) flowchart
- If a patient requires transfer to a higher level of care, The portable Drager monitor is to be sourced from COU or Post Anesthetic Care Unit (Recovery) and attached to the patient for safe transfer. It is the responsibility of the nurse escort to ensure the monitor is then returned to the appropriate clinical area
 - The Drager monitor should not be swapped over on transfer due to different disposables and service dates on each device

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Documentation of ALL Code Blue calls must be on the paper based SESLHD Resuscitation Form (located on every emergency trolley) and the yellow copy sent to the CERS CNC for review. The white copy remains in the patient's clinical notes. An eMR note must also be documented.

The Admitting Medical Officer (AMO) should be notified of all Code Blues as soon as practicable

3.10 Breast and Plastics Service

For escalation of care for patients admitted to RHW under the care of Prince of Wales Hospital Plastic's/ Breast team please see Appendix 9: Escalation of care for patients admitted under the POWH Plastic's team and Escalation of care of Breast patients admitted under the POWH Breast team

3.11 Altered Calling Criteria

Altered Calling Criteria (ACC) are changes made to the Standard Calling Criteria by the AMO/delegated clinician responsible, to take account of a woman's unique physiological circumstances and/or medical condition. ACC are only to be used to align the calling criteria with the patient's baseline vital sign observation parameters when they are above or below the standard calling criteria.

Establishment of the woman's baseline should involve an assessment of the patient, and consultation with the woman, carers and/or family. Alter standard calling criteria only if appropriate, and where possible identify other agreed signs of deterioration. Alterations may be 'acute' or 'chronic'.

3.12 Acute

Acute alterations must be set for a defined period as determined by the clinician altering the calling criteria but cannot be set for longer than twelve hours. Acute alterations should be reviewed sooner than the set time if indicated by changes in the clinical condition

3.13 Chronic

Chronic alterations may be set for the entirety of the woman's episode of care and can be made when the woman's chronic and baseline observations fall outside standard parameters. This function is expected to be used rarely in the maternity patient

3.14 Process of Altering Calling Criteria

A medical officer must consult with the AMO or delegated clinician prior to altering the standard calling criteria

Document alterations to calling criteria on the appropriate electronic observation chart in the electronic medical record, and must include:

Rationale for the alteration, and the new calling criteria

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Authorisation of the alterations by the AMO/delegated clinician responsible

The **minimum** time frame for review of the altered calling criteria

- Acute alterations: time frame must reflect expected progression of patient condition and have a **maximum** time frame of 12 hours
- Chronic alterations: time frame must be documented, and may be set for a specific time frame, up to a maximum duration of the patient's admission, but needs formal acknowledgement by the admitting clinical team during routine reviews
- After the time frame has lapsed, the calling criteria reverts to the standard calling criteria on the SAGO/SMOC/SPOC/SNOC chart
- Individualised treatment plans, including resuscitation plans, may also require alterations to the yellow/red zone triggers, and this must also be documented in the woman's health care record

3.15 Recognise, Engage, Act, Call, Help (REACH)

For guidance around REACH program and the patient's / family / carer's activating a REACH call, please refer to Appendix 2 and RHW CBR - [REACH, Recognise, Engage, Act, Call, Help is on the way.](#)

3.16 SEPSIS

Sepsis is infection with organ dysfunction and is a 'medical emergency.' Conduct an A-I assessment for the deteriorating patient and if there are signs of sepsis, commence the appropriate pathway (see Appendix 4-7).

All sepsis resources can be accessed through the [Clinical Excellence Commission \(CEC\) website.](#)

NOTE: All sepsis pathways are paper form sourced from individual wards

3.17 Adult Extracorporeal membrane Oxygenation (ECMO)

The Prince of Wales ECMO Service will provide emergency ECMO for adult patients at the RHW

These patients may present with conditions specific to the peri-partum period that are acute and reversible, therefore amenable to ECMO support. These include:

- Peri-partum cardiomyopathies
- Amniotic fluid embolus
- Pulmonary embolus
- Acute exacerbations of chronic conditions
- Haemorrhagic shock or arrest is a contraindication to ECMO

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- The activation pathway for ECMO is unchanged – the resuscitation team leader activates via the emergency number 2222
- The operating theatres at RHW are a suitable ECMO location. If the patient is already in the theatre the ECMO team should bring equipment and staff to the operating theatres.
- Patients in any other location at the RHW should be moved to a suitable ECMO Location using the [Location Algorithm](#). Directions to Cath Lab from RHW are located in, [Map of Royal Hospital for Women to Cath Lab](#).

3.18 Maternal Collapse

For antenatal, intrapartum, or postnatal women experiencing an acute event involving cardiorespiratory systems and/or central nervous system, resulting in a reduced or absolute loss of consciousness please refer to CLIN132 [RHW Maternal Collapse CBR](#)

3.19 Educational Notes

At least one Code Blue responder will be skilled in Advanced Life Support

3.20 Related Policies and Procedures

- [NSW Health Guideline SESLHDGL/125 Acute Anaphylaxis Management](#)
- [RHW Neonatal CERS – Management of the Deteriorating NEONATAL inpatient \(CERS\)](#)
- [RHW Deteriorating neonate – Recognition and management of the neonate who is Clinically Deteriorating outside of the Newborn Care Centre](#)
- [SESLHDPR/697 Management of the Deteriorating ADULT inpatient \(excluding maternity\)](#)
- [SESLHDPR/705 Management of the deteriorating MATERNITY woman](#)
- [SESLHDPR/340 Management of the Deteriorating NEONATAL inpatient](#)
- [NSW Health guideline for Fetal Heart Rate \(FHR\) Monitoring GL2025_004.](#)
- [NSW Health PD2025_014 Recognition and management of patients who are deteriorating](#)
- [NSW Health PD2014_030 Using Resuscitation Plans in End-of-Life Decisions](#)
- [NSW Health PD2021_069 Health Care Records – Documentation and Management NSW](#)
- [RHW Mental health Escalation – Maternity and Gynaecology – inpatient](#)
- [RHW Mental health Escalation – Maternity and Gynaecology – Outpatient](#)
- [RHW REACH – recognise, engage, act, call, help is on the way](#)
- [RHW CLIN132 Maternal Collapse](#)

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- [Clinical Excellence Commission \(CEC\) Sepsis Pathways](#)
- [RHW Close Observation Unit: Admission, Escalation, Transfer and Discharge](#)
- Australian and New Zealand Committee on Resuscitation (2025). [Guideline 8: Cardiopulmonary resuscitation \(ANZCOR Guideline 8\)](#). <https://resus.org.au/guidelines/>

4 ABORIGINAL HEALTH IMPACT STATEMENT DOCUMENTATION

- Considerations for culturally safe and appropriate care provision have been made in the development of this Business Rule and will be accounted for in its implementation.
- When clinical risks are identified for an Aboriginal and/or Torres Strait Islander woman or family, they may require additional supports. This may include Aboriginal health professionals such as Aboriginal Liaison Officers, health workers or other culturally specific services

5 CULTURAL SUPPORT

- For a Culturally and Linguistically Diverse CALD woman, notify the nominated cross-cultural health worker during Monday to Friday business hours
- If the woman is from a non-English speaking background, call the interpreter service: [NSW Ministry of Health Policy Directive PD2017 044-Interpreters Standard Procedures for Working with Health Care Interpreters](#).

6 NATIONAL STANDARDS

- Standard 2
- Standard 6
- Standard 8

7 REVISION AND APPROVAL HISTORY

Date	Revision No.	Author and Approval
Sept 2025	8	RHW BRGC
June 2025	8	Addendum & Update RRAD committee
23.10.2025		RHW BRGC
April 2024	7	Author J Mossman (CERS CNC) RRAD committee

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September 2023	6	Reviewed and Approved RHW Safety & Quality Committee
December 2019		Reviewed and Approved RHW Safety & Quality committee
November 2019	5	Reviewed and endorsed Maternity Services LOPS Group – previous title Patient (Adult) with acute condition for escalation (Pace) criteria and escalation
August 2019	4	Changed from PACE to CERS
February 2019		Changed '777' to '2222'
June 2018	3	Reviewed and endorsed Maternity Services LOPs 19/6/18 – previous title Adult Clinical Emergency Response System (CERS) and escalation
July 2014	2	Approved Quality and Patient Care Committee 17/7/14
November 2010		Approved Quality and Patient Safety Committee 18/11/10
November 2010	1	Approved Gynaecology Services Management Committee 11/11/10

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Appendix 1

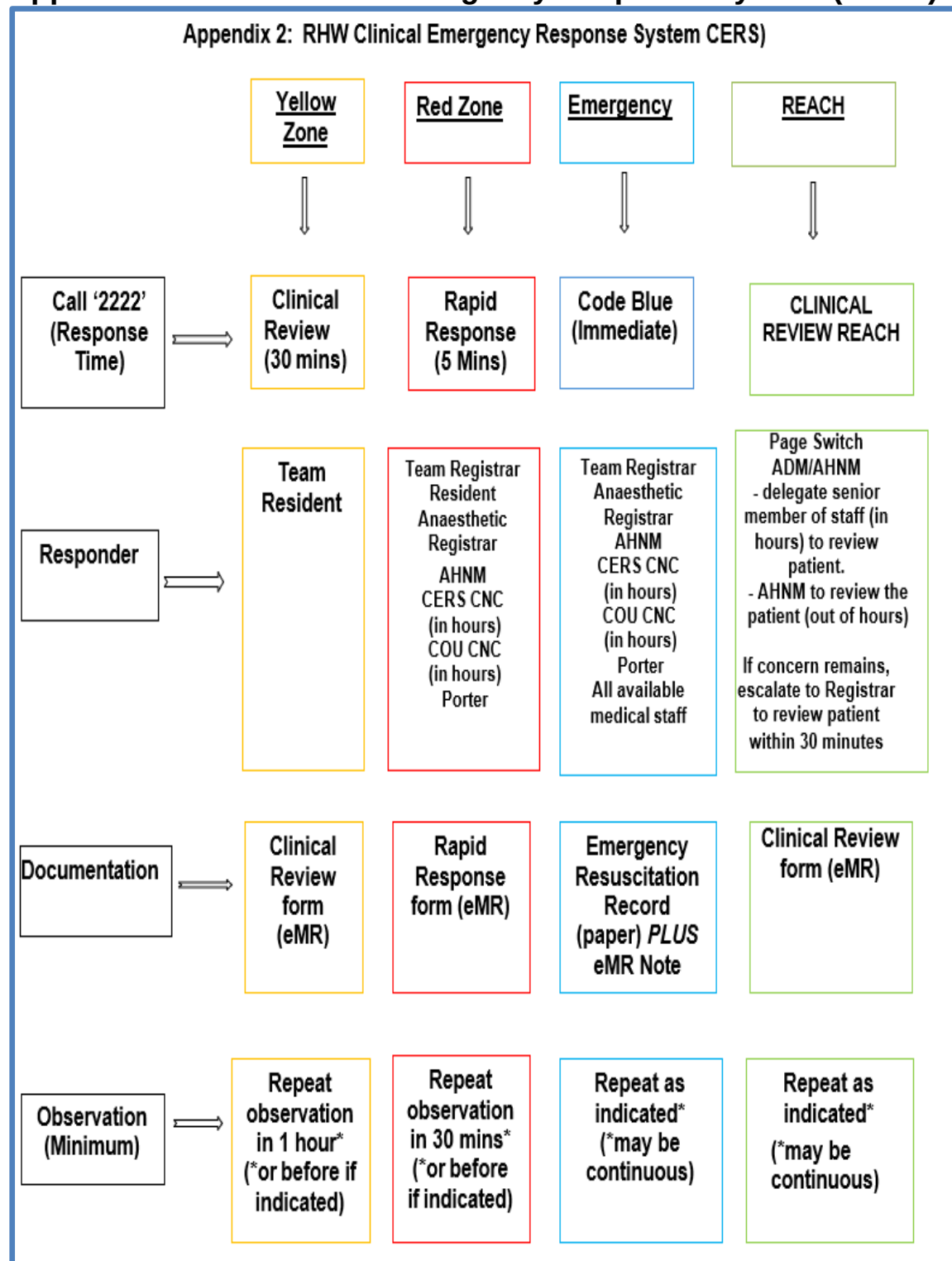
Emergency trolley and Defibrillator Locations RHW

LEVEL	WARD	DEFIBRILLATOR
Level 4	Close Observation Unit (COU)	Yes- R Series and Automated External Defibrillator (AED)
Level 3	Paddington (South)	Yes- AED
Level 2	Day Surgery	Yes- AED
Level 2	Gynaecology Outpatients	Yes- AED
Level 2	Macquarie Ward	Yes- AED
Level 1	Birthing Services	Yes- AED
Level 1	Recovery RHW	Yes- R Series Yes- AED
Level 1	Newborn Care Centre	Yes- R Series
Ground	Admissions – Behind front desk	Yes- AED
Ground	Reproductive Medicine	Yes- AED
Ground (Hospital campus Avoca Street entrance)	Menopause hub	Yes- AED

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Appendix 2 RHW Clinical Emergency Response System (CERS)



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Appendix 3

Observations Deteriorating Patient

'Recognition and management of patients who are deteriorating' [PD2025_014](#)

Patient group	Minimum required frequency of assessment	Minimum set of vital sign observations	Comments
Adult inpatients	Four (4) times per day at six (6) hourly intervals	Respiratory rate, oxygen saturation, heart rate, blood pressure, temperature, level of consciousness, new onset confusion or behaviour change*, pain score	The Standard Maternal Observation Chart (SMOC) is recommended for all pregnant women and up to six (6) weeks post pregnancy including any perinatal loss
Mental health acute and subacute	Three (3) times per day at eight (8) hourly intervals for a minimum of 48 hours, then daily thereafter	Respiratory rate, oxygen saturation, heart rate, blood pressure, temperature, level of consciousness, pain score	Mental state assessment of patients within a mental health inpatient unit are to be completed in line with NSW Health Policy Directive <i>Engagement and Observation in Mental Health Inpatient Units</i> (PD2017_025)
Mental health non-acute	Three (3) times per day at eight (8) hourly intervals for a minimum of 48 hours, then monthly thereafter	Respiratory rate, oxygen saturation, heart rate, blood pressure, temperature, level of consciousness, pain score	Patients with active comorbid physical health conditions or aged 65 years and over are to have observations no less than weekly and are to have a comprehensive systematic physical assessment completed at least monthly
Hospital in the Home	At least once during each consultation/visit	To be determined locally based on the models of care and assessment of risk	
Virtual care	As determined by the model of care and assessment of risk	To be determined based on the model of care and assessment of risk	Model of care is to describe the requirements for patient reported observations and process of validation as part of the local CERS response
Neonatal/Special Care Unit	Six (6) times per day at four (4) hourly intervals	Respiratory rate, respiratory distress, oxygen saturation, heart rate, temperature, behaviour change*, pain score	A baseline blood pressure (BP) should be measured within 24 hours of admission. Additional BPs are to be taken as clinically indicated
Neonatal/newborn period and postnatal stay	Before leaving the birthing environment One (1) full set of vital signs observations and a risk assessment completed. If neonatal risk factors are identified and/or observations within the Blue, Yellow or Red Zone and/or additional criteria present, further	Respiratory rate, oxygen saturation, heart rate and temperature	Babies with low or no identifiable risk factors are to be monitored/assessed in-line with local protocols

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Patient group	Minimum required frequency of assessment	Minimum set of vital sign observations	Comments
	observations must be recorded on a Standard Neonatal Observation Chart (SNOC). These observations must be recorded six (6) times per day at four (4) hourly intervals		
Paediatric inpatients	Six (6) times per day at four (4) hourly intervals	Respiratory rate, respiratory distress, oxygen saturation, heart rate, temperature, level of consciousness, new onset confusion or behaviour change*, pain score	Baseline blood pressure (BP) is to be measured within 24 hours of admission. Additional BPs are to be taken as clinically indicated
Maternity/antenatal inpatient	Four (4) times per day at six (6) hourly intervals	Respiratory rate, oxygen saturation, heart rate, blood pressure, temperature, level of consciousness, new onset confusion or behaviour change*.	For fetal heart rate monitoring requirements refer to NSW Health Guideline <i>Maternity – Fetal heart rate monitoring</i> (GL2018_025)
Maternity/intrapartum inpatient	Six (6) times per day at four (4) hourly intervals at a minimum	Respiratory rate, oxygen saturation, heart rate, blood pressure, temperature, level of consciousness, new onset confusion or behaviour change*	For fetal heart rate monitoring requirements refer to NSW Health Guideline <i>Maternity – Fetal heart rate monitoring</i> (GL2018_025)
Maternity/postnatal inpatient with no identified risk factors	Before leaving the birth environment One (1) full set of vital sign observations If a woman has observations in a coloured zone or identified risk factors, vital sign observations are to be performed at least four (4) times per day at six (6) hourly intervals	Respiratory rate, oxygen saturation, heart rate, blood pressure, temperature, level of consciousness, new onset confusion or behaviour change*, cumulative blood loss	
Maternity postnatal inpatient with risk factors	Four (4) times per day at six (6) hourly intervals	Respiratory rate, oxygen saturation, heart rate, blood pressure, temperature, level of consciousness, new onset confusion or behaviour change*, cumulative blood loss	

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Appendix 4 CEC Sepsis Pathways – Adult

 SMR060400	 NSW Health	FAMILY NAME _____ MRN: _____	
		GIVEN NAME _____ ☐ MALE ☐ FEMALE	
	Facility: _____	D.O.B. ____/____/____ M.O. _____	
	ADULT SEPSIS PATHWAY	ADDRESS _____ _____ _____	
		LOCATION / WARD _____ COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE	

Use for patients 16 years or older in any clinical setting to support recognition and management of sepsis
 For pregnant women and up to six weeks post-pregnancy use the CEC Maternal Sepsis Pathway
 Use local febrile neutropenia guideline where relevant

RECOGNISE



COULD IT BE SEPSIS?

Sepsis is infection with organ dysfunction and is a **medical emergency**

Does the patient have any signs or symptoms of INFECTION?

☐ Looks very unwell

☐ History of fever, rigors, hypothermia

☐ Tachypnoea, short of breath, cough, new O₂ requirement

☐ New confusion, change in behaviour or altered level of consciousness, delirium

☐ Unexplained pain

☐ Wound or line redness, pain, swelling, exudate

☐ Non-blanching rash

☐ Abdominal pain, distension, vomiting, diarrhoea

☐ Dysuria, oliguria, frequency, odour

☐ Raised lactate, WCC or CRP (if known)

AND/OR any of the following risk factors?

☐ Aged ≥ 65 years

☐ Frail, chronic condition or recent fall

☐ Aboriginal and Torres Strait Islander people

☐ Immunocompromised

☐ Indwelling medical device or line

☐ Patient, carer or family concern

☐ Recent trauma, surgery, procedure

☐ Known infection not responding to treatment

☐ Re-presentation, deterioration or no improvement with the same illness

Commence A-G systematic assessment and document a full set of vital sign observations

Does the patient have signs of ORGAN DYSFUNCTION?
Early signs include hypotension, tachypnoea, altered mental state, raised lactate

☐ **ANY RED ZONE** observation OR additional criteria (including lactate ≥ 4 mmol/L)

☐ **TWO or more YELLOW ZONE** observations OR additional criteria (including lactate ≥ 2 mmol/L)

Call a **RAPID RESPONSE** (as per local CERS) and refer to any Resuscitation Plan

Call for a **CLINICAL REVIEW** within 30 minutes (as per local CERS) **AND** consult with the **SENIOR CLINICIAN**

This patient has **PROBABLE SEPSIS** with a high risk of deterioration and **SEPTIC SHOCK**

Does the senior clinician consider the patient has **POSSIBLE SEPSIS?**

Consider other causes of deterioration

If infection treat with antibiotics

Increase frequency of vital sign observations as indicated by the patient's condition

Reconsider sepsis if the patient deteriorates

RESPOND & ESCALATE

Commence sepsis treatment (over page) AND inform the Attending Medical Officer
 Discuss the management plan with the patient, carer or family including any Advance Care Plan

NO WRITING

Page 1 of 2

ADULT SEPSIS PATHWAY

SMR060.400

Clinical Emergency Response System (CERS) – Management of the Deteriorating Patient

RHW CLIN004

 NSW Health	FAMILY NAME: _____	MRN: _____
	GIVEN NAME: _____	☐ MALE ☐ FEMALE
	D.O.B: ____/____/____	M.O: _____
	ADDRESS: _____	
Facility: _____	LOCATION / WARD: _____	
ADULT SEPSIS PATHWAY		
COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE		

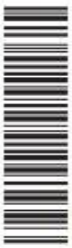
 RESUSCITATE	Complete actions 1 to 5 within 60 minutes with ongoing A-G systematic assessment		
	1. Get help	Escalate as per local CERS (if not already called)	WITHIN 
	2. Commence monitoring	Give oxygen as required to maintain SpO₂ ≥ 95% (88 - 92% for COPD)	
	3. Obtain access and collect pathology	- Call for expert assistance after 2 failed attempts at cannulation and prepare for intraosseous access - Collect venous blood gas or point of care test if available - Collect 2 sets of blood cultures from 2 separate sites; if difficult to obtain do not delay antibiotics - If CVAD in situ, take 1 blood culture set from CVAD and 1 set peripherally	WITHIN 
	☐ Vascular access ☐ Lactate (unless collected) ☐ Pathology (FBC, EUC, LFTs, VBG + CRP if available) ☐ Blood cultures ☐ Other cultures / investigations ☐ Blood glucose level	Do not wait for test results: commence fluids and antibiotics	
	4. Commence fluid resuscitation	- Give 500mL crystalloid bolus STAT e.g. sodium chloride 0.9% / Hartmann's / Plasma-Lyte - Assess response, aim for systolic blood pressure ≥ 100mmHg - Monitor and document strict fluid input / output Repeat 500mL bolus if ongoing hypotension - Closely monitor patients with cardiac or renal dysfunction, pulmonary oedema, elderly or frail when giving repeated fluid boluses If ongoing hypotension, consider commencement of vasopressors and escalate to Intensive Care or retrieval service	WITHIN 
☐ First fluid bolus given ☐ Second fluid bolus given ☐ IDC considered ☐ Vasopressors commenced	5. Commence antibiotics		
☐ First / new antibiotic commenced	- Document source of infection if known - Use Therapeutic Guidelines: Antibiotic or local sepsis guideline - Consult expert advice for complex patient or multiple sources		
REASSESS & REFER	6. Reassess	- Re-examine for other sources of infection - Update nurse in charge and Attending Medical Officer - use ISBAR - Discuss the management plan with the patient, carer, family - Repeat lactate within 2 hours	
	☐ Repeat lactate taken	7. Refer	- Refer for surgical source control if required - Escalate to Intensive Care or retrieval service if no improvement or further deterioration
	☐ Intensive Care / retrieval service contacted		
Continue to monitor vital sign observations and fluid balance – minimum frequency every 30 minutes for 2 hours then hourly for 4 hours Actively seek microbiology and other investigation results and review treatment plan Escalate as per local CERS if any signs of deterioration			

Print Name: _____	Signature: _____
Designation: _____	Date: ____/____/____

Clinical Emergency Response System (CERS) –
Management of the Deteriorating Patient

RHW CLIN004

Appendix 5 Appendix 5 CEC Sepsis Pathways - Maternal



SMR060402

Holes Punched as per AS2828 1: 2019

BINDING MARGIN - NO WRITING

NHT00307 090224

 NSW Health Facility: MATERNAL SEPSIS PATHWAY	FAMILY NAME	MRN
	GIVEN NAME	
	D.O.B. ____/____/____	M.O.
	ADDRESS	
	LOCATION / WARD	

COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE

Use for all pregnant women and up to six weeks post-pregnancy, including any perinatal loss, in any clinical setting to support recognition and management of sepsis

Use local febrile neutropenia guideline where relevant.

COULD IT BE SEPSIS?

Sepsis is **infection** with **organ dysfunction** and is a **medical emergency**

Does the woman have any signs or symptoms of INFECTION?

☐ Myalgia, back pain, general malaise, headache

☐ Unexplained abdominal pain, distension

☐ Vomiting, diarrhoea

☐ New confusion, change in behaviour or altered level of consciousness

☐ History of fevers, rigors or feeling cold

☐ Flu-like symptoms, cough, sputum, breathless

☐ Breast, wound or line redness, swelling, pain (including epidural block site)

☐ Dysuria, oliguria, frequency, odour

AND/OR any of the following risk factors?

☐ Recent surgery, procedure, wound

☐ At risk of intrauterine infection (prolonged rupture of membranes, prolonged labour, retained products of conception, fetal tachycardia)

☐ Immunocompromised, chronic illness

☐ Indwelling medical device or line

☐ Iron-deficiency anaemia

☐ Unwell children, household members

☐ Concern by woman, family, clinician

☐ Aboriginal and Torres Strait Islander people

Maternal sepsis often presents with vague non-specific symptoms

Commence A-G systematic assessment and document a full set of vital sign observations

Does the woman have signs of ORGAN DYSFUNCTION? Including:

SBP < 90mmHg and/or respiratory rate ≥ 25 bpm and/or any non-alert mental status and/or raised lactate

☐ **ANY RED ZONE observation OR additional criteria** (including lactate ≥ 4 mmol/L)

☐ **TWO or more YELLOW ZONE observations OR additional criteria** (including lactate ≥ 2 mmol/L)

Temperature instability is consistent with sepsis

Call a **RAPID RESPONSE** (as per local CERS) and refer to any Resuscitation Plan

Call for a **CLINICAL REVIEW** within 30 minutes (as per local CERS) **AND** consult with the **SENIOR CLINICIAN**

This woman has **PROBABLE SEPSIS** with a high risk of deterioration and **SEPTIC SHOCK**

This woman has **POSSIBLE SEPSIS**

Consider other causes of deterioration

Increase frequency of vital sign observations as indicated by the woman's condition

Reconsider sepsis if the woman deteriorates and escalate as per local CERS and Tiered Perinatal Network

Commence sepsis treatment (over page)

Discuss the management plan with the woman, family, carer including any Advance Care Plan

Assess the fetal / baby wellbeing unless there has been a perinatal loss

RECOGNISE

RESPOND & ESCALATE

MATERNAL SEPSIS PATHWAY

SMR060402

NO WRITING

Page 1 of 2

**Clinical Emergency Response System (CERS) –
Management of the Deteriorating Patient**

RHW CLIN004

	NSW Health	FAMILY NAME _____ GIVEN NAME _____ D.O.B. ____/____/____ M.O. _____ ADDRESS _____ LOCATION / WARD _____ COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE	MRN _____ ☐ MALE ☐ FEMALE
	Facility: _____		

MATERNAL SEPSIS PATHWAY	
--------------------------------	--

	Complete actions 1 to 5 within 60 minutes with ongoing A-G systematic assessment including fetal / baby wellbeing as relevant															
RESUSCITATE	<table style="width: 100%;"> <tr> <td style="width: 35%; padding: 5px;"> 1. Get help </td> <td style="width: 60%; padding: 5px;"> - Escalate as per local CERS (if not already called) - Consult with Obstetrician / senior clinician </td> <td style="width: 5%; text-align: center; vertical-align: middle;"> WITHIN  </td> </tr> <tr> <td style="padding: 5px;"> 2. Commence monitoring </td> <td style="padding: 5px;"> - Give oxygen as required to maintain SpO₂ ≥ 95% </td> <td></td> </tr> <tr> <td style="padding: 5px;"> 3. Obtain access and collect pathology ☐ Vascular access ☐ Lactate (unless collected) ☐ Pathology (FBC, EUC, LFTs, fibrinogen, coagulation screen, VBG + CRP if available) ☐ Blood cultures ☐ Other cultures / investigations ☐ Blood glucose level </td> <td style="padding: 5px;"> - Call for expert assistance after 2 failed attempts at cannulation - Collect venous blood gas or point of care test if available - Collect 2 sets of blood cultures from 2 separate sites; if difficult to obtain do not delay antibiotics - Collect microbiological samples according to suspected source (e.g. urine, vaginal swabs / lochia, breast milk, stool, wound, placental, viral swabs and throat) Do not wait for test results: commence fluids and antibiotics </td> <td style="text-align: center; vertical-align: middle;"> WITHIN  </td> </tr> <tr> <td style="padding: 5px;"> 4. Commence fluid resuscitation ☐ Fluid bolus commenced ☐ IDC inserted </td> <td style="padding: 5px;"> - Give initial 1000mL sodium chloride 0.9% bolus STAT - Aim for systolic blood pressure (SBP) > 90mmHg - If SBP < 90mmHg after initial bolus call a RAPID RESPONSE - Monitor and document strict fluid input / output If ongoing hypotension, consider commencement of vasopressors and escalate to Intensive Care or retrieval service </td> <td style="text-align: center; vertical-align: middle;"> WITHIN  </td> </tr> <tr> <td style="padding: 5px;"> 5. Commence antibiotics ☐ First / new antibiotic commenced </td> <td style="padding: 5px;"> - Document source of infection if known - Use Therapeutic Guidelines: Antibiotic or local sepsis guideline - Consult expert advice if the woman is already on antibiotics and / or has septic shock </td> <td></td> </tr> </table>	1. Get help	- Escalate as per local CERS (if not already called) - Consult with Obstetrician / senior clinician	WITHIN 	2. Commence monitoring	Give oxygen as required to maintain SpO₂ ≥ 95%		3. Obtain access and collect pathology ☐ Vascular access ☐ Lactate (unless collected) ☐ Pathology (FBC, EUC, LFTs, fibrinogen, coagulation screen, VBG + CRP if available) ☐ Blood cultures ☐ Other cultures / investigations ☐ Blood glucose level	- Call for expert assistance after 2 failed attempts at cannulation - Collect venous blood gas or point of care test if available - Collect 2 sets of blood cultures from 2 separate sites; if difficult to obtain do not delay antibiotics - Collect microbiological samples according to suspected source (e.g. urine, vaginal swabs / lochia, breast milk, stool, wound, placental, viral swabs and throat) Do not wait for test results: commence fluids and antibiotics	WITHIN 	4. Commence fluid resuscitation ☐ Fluid bolus commenced ☐ IDC inserted	- Give initial 1000mL sodium chloride 0.9% bolus STAT - Aim for systolic blood pressure (SBP) > 90mmHg - If SBP < 90mmHg after initial bolus call a RAPID RESPONSE - Monitor and document strict fluid input / output If ongoing hypotension, consider commencement of vasopressors and escalate to Intensive Care or retrieval service	WITHIN 	5. Commence antibiotics ☐ First / new antibiotic commenced	- Document source of infection if known - Use Therapeutic Guidelines: Antibiotic or local sepsis guideline - Consult expert advice if the woman is already on antibiotics and / or has septic shock	
1. Get help	- Escalate as per local CERS (if not already called) - Consult with Obstetrician / senior clinician	WITHIN 														
2. Commence monitoring	Give oxygen as required to maintain SpO₂ ≥ 95%															
3. Obtain access and collect pathology ☐ Vascular access ☐ Lactate (unless collected) ☐ Pathology (FBC, EUC, LFTs, fibrinogen, coagulation screen, VBG + CRP if available) ☐ Blood cultures ☐ Other cultures / investigations ☐ Blood glucose level	- Call for expert assistance after 2 failed attempts at cannulation - Collect venous blood gas or point of care test if available - Collect 2 sets of blood cultures from 2 separate sites; if difficult to obtain do not delay antibiotics - Collect microbiological samples according to suspected source (e.g. urine, vaginal swabs / lochia, breast milk, stool, wound, placental, viral swabs and throat) Do not wait for test results: commence fluids and antibiotics	WITHIN 														
4. Commence fluid resuscitation ☐ Fluid bolus commenced ☐ IDC inserted	- Give initial 1000mL sodium chloride 0.9% bolus STAT - Aim for systolic blood pressure (SBP) > 90mmHg - If SBP < 90mmHg after initial bolus call a RAPID RESPONSE - Monitor and document strict fluid input / output If ongoing hypotension, consider commencement of vasopressors and escalate to Intensive Care or retrieval service	WITHIN 														
5. Commence antibiotics ☐ First / new antibiotic commenced	- Document source of infection if known - Use Therapeutic Guidelines: Antibiotic or local sepsis guideline - Consult expert advice if the woman is already on antibiotics and / or has septic shock															
REASSESS & REFER	<table style="width: 100%;"> <tr> <td style="width: 35%; padding: 5px;"> 6. Reassess ☐ Repeat lactate taken </td> <td style="width: 60%; padding: 5px;"> - Re-examine for other sources of infection - Update midwife in charge and Attending Medical Officer – use ISBAR - Sepsis management plan documented by a medical officer - Discuss the management plan with the woman and family - Update the baby's care team on the woman's condition (if applicable) - Repeat lactate within 2 hours </td> </tr> <tr> <td style="padding: 5px;"> 7. Refer ☐ Intensive Care / retrieval service contacted </td> <td style="padding: 5px;"> - Refer for surgical source control if required - Escalate via the Tiered Perinatal Network in line with service capability levels if no improvement or further deterioration </td> </tr> </table>	6. Reassess ☐ Repeat lactate taken	- Re-examine for other sources of infection - Update midwife in charge and Attending Medical Officer – use ISBAR - Sepsis management plan documented by a medical officer - Discuss the management plan with the woman and family - Update the baby's care team on the woman's condition (if applicable) - Repeat lactate within 2 hours	7. Refer ☐ Intensive Care / retrieval service contacted	- Refer for surgical source control if required - Escalate via the Tiered Perinatal Network in line with service capability levels if no improvement or further deterioration											
6. Reassess ☐ Repeat lactate taken	- Re-examine for other sources of infection - Update midwife in charge and Attending Medical Officer – use ISBAR - Sepsis management plan documented by a medical officer - Discuss the management plan with the woman and family - Update the baby's care team on the woman's condition (if applicable) - Repeat lactate within 2 hours															
7. Refer ☐ Intensive Care / retrieval service contacted	- Refer for surgical source control if required - Escalate via the Tiered Perinatal Network in line with service capability levels if no improvement or further deterioration															

Continue to monitor vital sign observations and fluid balance – minimum frequency every 30 minutes for 2 hours then hourly for 4 hours Actively seek microbiology and other investigation results and review treatment plan Escalate as per local CERS if any signs of deterioration	
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Print Name: _____	Signature: _____
Designation: _____	Date: ____/____/____

Page 2 of 2
NO WRITING

Notes Punched as per AS2828-1: 2019
BINDING MARGIN - NO WRITING



Clinical Emergency Response System (CERS) –
Management of the Deteriorating Patient

RHW CLIN004

Appendix 6 CEC Sepsis Pathways - Paediatric



SMR060399

Holes Punched as per AS2828.1: 2019

BINDING MARGIN - NO WRITING

 NSW Health Facility: PAEDIATRIC SEPSIS PATHWAY	FAMILY NAME	MRN
	GIVEN NAME	
	☐ MALE ☐ FEMALE	
	D.O.B. / /	M.O.
	ADDRESS	
LOCATION / WARD		
COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE		

Use for patients from 28 days corrected age to 16 years in any clinical setting to support recognition and management of sepsis

Babies up to 28 days corrected age use CEC Neonatal Sepsis Pathway

Use febrile neutropenia guideline where relevant

COULD IT BE SEPSIS?

Sepsis is **infection** with **organ dysfunction** and is a **medical emergency**

Does the patient have any **signs of INFECTION** or history / evidence of **fever** or **hypothermia**, **PLUS ANY** of the following:

☐ Looks sick or toxic – grunting, rigors, pallor, poor feeding
☐ Change in behaviour or decreased level of consciousness
☐ Persistent tachycardia
☐ Severe unexplained pain
☐ Non-blanching rash

☐ Parental, carer or clinician concern
☐ Immunocompromised or complex medical history
☐ Re-presentation or worsening with same illness
☐ Under 3 months of age
☐ Central line or invasive device
☐ Recent surgery, burn, wound
☐ Aboriginal and Torres Strait Islander people

Commence A-G systematic assessment and document a full set of vital sign observations including blood pressure

Does the patient have **ANY** features of **SEVERE ILLNESS**?

Laboratory features of severe illness / organ dysfunction include acidosis, low platelets, elevated creatinine, elevated CRP or coagulopathy

Any of the following RED ZONE criteria:

☐ Respiratory rate OR distress
☐ Heart rate
☐ Blood pressure (or drop in diastolic pressure or widening pulse pressure)
☐ Lactate ≥ 4 mmol/L
☐ Level of consciousness ACVPU

Any of the following YELLOW ZONE criteria:

☐ Respiratory rate OR distress
☐ Heart rate
☐ Blood pressure
☐ Central capillary refill ≥ 3 seconds
☐ Lactate 2.0 to 3.9 mmol/L
☐ Change in behaviour

Call a **RAPID RESPONSE**
(as per local CERS)

Call for a **CLINICAL REVIEW** within 30 minutes (as per local CERS) **AND** consult with the **SENIOR CLINICIAN**

Does the senior clinician consider the patient has sepsis?

PROBABLE SEPSIS
(with or without signs of shock)

- Resuscitate (over page)
- Treat within 60 minutes

POSSIBLE SEPSIS
(no signs of shock)

- Investigate
- Treat within 3 hours

SEPSIS UNLIKELY

- Consider other causes of deterioration
- Reconsider sepsis if the patient deteriorates

PAEDIATRIC SEPSIS PATHWAY

SMR060.399

NO WRITING

Page 1 of 2

Clinical Emergency Response System (CERS) –
Management of the Deteriorating Patient

RHW CLIN004

NSW GOVERNMENT		PATIENT INFORMATION		☐ MALE ☐ FEMALE	
Facility:		D.O.B. ____/____/____		M.O.	
		ADDRESS			
		LOCATION / WARD			
		COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE			

PAEDIATRIC SEPSIS PATHWAY		Complete actions 1 to 5 within 60 minutes with ongoing A-G systematic assessment							
RESUSCITATE	1. Get help	• Consult with Paediatrician / Emergency Physician / ICU / NETS			WITHIN 5				
	2. Commence monitoring	• Give oxygen as required to maintain SpO ₂ ≥ 95%							
	3. Obtain access and collect pathology	• Obtain vascular access within 5 minutes (intraosseous access if no vascular access) • Take blood culture prior to antibiotics (3mL in paediatric or 10mL in adult bottle) • Where possible collect all relevant cultures Do not wait for test results: commence fluids and antibiotics			WITHIN 30				
	☐ Vascular access ☐ Blood culture ☐ Blood gas ☐ Lactate ☐ Blood glucose level (BGL)								
	4. Commence antibiotics	• Use Therapeutic Guidelines: Antibiotic OR local guideline OR Australian Clinical Practice Guidelines – antimicrobial guidelines • Give IM ceftriaxone if IV or intraosseous access is not obtained within 15 minutes • Document source of infection if known							
	5. Commence fluid resuscitation	• Administer 20 mL/kg sodium chloride 0.9% IV or intraosseous rapid bolus • Assess response • If BGL < 3 mmol/L give 2 mL/kg glucose 10% • Consider giving a second 20 mL/kg sodium chloride 0.9% IV or intraosseous rapid bolus			WITHIN 60				
	☐ Fluid bolus given								
REASSESS & REFER	6. Reassess	Does the patient have any persistent signs of sepsis following 40 mL/kg bolus fluid?							
	☐ Repeat lactate taken	<table border="1"> <tr> <td> Any of the following RED ZONE criteria: </td> <td> Any of the following YELLOW ZONE criteria: </td> </tr> <tr> <td> ☐ Respiratory rate or distress ☐ Heart rate ☐ Blood pressure (or drop in diastolic / widening pulse pressure) ☐ Lactate ≥ 4 mmol/L (or not improving) ☐ Level of consciousness ACVPU </td> <td> ☐ Blood pressure ☐ Central capillary refill ≥ 3 seconds ☐ Urine output < 1 mL/kg/hr </td> </tr> </table>				Any of the following RED ZONE criteria:	Any of the following YELLOW ZONE criteria:	☐ Respiratory rate or distress ☐ Heart rate ☐ Blood pressure (or drop in diastolic / widening pulse pressure) ☐ Lactate ≥ 4 mmol/L (or not improving) ☐ Level of consciousness ACVPU	☐ Blood pressure ☐ Central capillary refill ≥ 3 seconds ☐ Urine output < 1 mL/kg/hr
	Any of the following RED ZONE criteria:	Any of the following YELLOW ZONE criteria:							
☐ Respiratory rate or distress ☐ Heart rate ☐ Blood pressure (or drop in diastolic / widening pulse pressure) ☐ Lactate ≥ 4 mmol/L (or not improving) ☐ Level of consciousness ACVPU	☐ Blood pressure ☐ Central capillary refill ≥ 3 seconds ☐ Urine output < 1 mL/kg/hr								
7. Refer	OR hypoglycaemia, acidosis, low white cell count or abnormal coagulation								
	Prepare inotropic support and consider respiratory support ☐ Intensive Care / NETS contacted ☐ Inotropes commenced	YES Seek advice immediately from local / regional paediatric experts AND Contact Intensive Care / NETS Tel: 1300 36 25 00 • Prepare adrenaline (epinephrine) infusion as per the NETS Clinical Calculator - can be given via peripheral IV or intraosseous access • Discuss management plan with the family / carers							

Print Name: _____	Signature: _____
Designation: _____	Date: ____/____/____

BINDING MARGIN - NO WRITING

SMR060399

Clinical Emergency Response System (CERS) –
Management of the Deteriorating Patient

RHW CLIN004

Appendix 7 Neonatal Sepsis Pathway



SMR060403

Holes Punched as per AS2829 1:2019

BINDING MARGIN - NO WRITING

 NSW Health Facility: NEONATAL SEPSIS PATHWAY	FAMILY NAME	MRN
	GIVEN NAME	
	D.O.B. / /	M.O.
	ADDRESS	
	LOCATION / WARD	

COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE

Use for neonates (babies up to 28 days corrected age) in any clinical setting to support recognition and management of sepsis

RECOGNISE

COULD IT BE SEPSIS?

Sepsis is **infection** with **organ dysfunction** and is a **medical emergency**

Does the baby have any of the following:

Signs or symptoms of INFECTION?

- ☐ Fever, hypothermia, temperature instability
- ☐ Pale, mottled, central cyanosis
- ☐ Lethargy, poor feeding, floppy / poor tone
- ☐ Apnoea(s)
- ☐ New or worsening signs of respiratory distress

Maternal risk factors?

- ☐ Prolonged rupture of membranes > 18 hours
- ☐ Maternal pyrexia $\geq 38^{\circ}\text{C}$
- ☐ Maternal infection
- ☐ Group B streptococcus (GBS)
- ☐ Bacterial growth on placental swab
- ☐ Increased sepsis probability on Neonatal Early-Onset Sepsis Calculator*

- ☐ New rash, red umbilicus, cellulitis, joint swelling
- ☐ Seizure(s), abnormal movements, high pitched cry, irritability, increased tone, jitteriness
- ☐ Abdominal distension / tenderness, vomiting, diarrhoea, blood in stool

Other risk factors?

- ☐ Family, carer or clinician concern the baby is sick
- ☐ Unwell family members
- ☐ Re-presentation for ongoing condition or concern
- ☐ Known or suspected infection - not improving
- ☐ Indwelling line(s) with signs of infection
- ☐ Prematurity (immunocompromised)
- ☐ Aboriginal and Torres Strait Islander people

***Neonatal Early-Onset Sepsis Calculator**

ONLY for babies < 24 hours old AND ≥ 34 weeks gestation

Entered details must be exact

Set incidence to 0.4/1000 births

Note: Does not replace the senior clinician decision to commence treatment



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Commence A-G systematic assessment and document a full set of vital sign observations including blood pressure

RESPOND & ESCALATE

Does the baby have ANY features of SEVERE ILLNESS?

Laboratory features of severe illness / organ dysfunction include acidosis, lactate ≥ 4 mmol/L, neutropenia, thrombocytopenia, elevated CRP

☐ ANY RED ZONE observation OR additional criteria

↓

Call a **RAPID RESPONSE** (as per local CERS) and consult with **SENIOR CLINICIAN**

☐ ANY YELLOW ZONE observation OR additional criteria

↓

Call for a **CLINICAL REVIEW** (as per local CERS) and **SENIOR CLINICIAN** review within 30 minutes

Consider other causes (e.g. postnatal transition, respiratory distress syndrome, congenital heart disease, hypovolaemia or metabolic disease)

Does the senior clinician consider the baby has **POSSIBLE SEPSIS**?

↓ YES

COMMENCE SEPSIS TREATMENT (over page)

↓ NO

Consider other causes of deterioration and increase frequency of vital sign observations

Reconsider sepsis if the baby deteriorates

NO WRITING

Page 1 of 2

Clinical Emergency Response System (CERS) –
Management of the Deteriorating Patient

RHW CLIN004

 NSW Health Facility:		FAMILY NAME		MRN
		GIVEN NAME		☐ MALE ☐ FEMALE
		D.O.B. ____/____/____		M.O.
		ADDRESS		
NEONATAL SEPSIS PATHWAY		LOCATION / WARD		
		COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE		

RESUSCITATE	Complete actions 1 to 5 within 60 minutes with ongoing A-G systematic assessment		
	1. Get help	Consult with Paediatrician / Neonatologist / Emergency Physician / NETS	WITHIN 5 min
	2. Monitor Airway, Breathing, Circulation	- Commence respiratory support if required - Give supplemental oxygen to maintain SpO₂ 90 – 94% (babies < 48 hours) ≥ 95% (babies > 48 hours) - Continually monitor the baby and assess vital sign observations including blood pressure - Assess for signs of shock (e.g. delayed capillary refill, poor perfusion, tachycardia, hypotension, acidosis) - Provide thermal environment to achieve normothermia	WITHIN 15 min
	3. Obtain access and collect pathology	- Gain access: IV / umbilical / intraosseous (if baby > 2 kg) - Call for expert assistance after 2 failed attempts at cannulation - Prioritise blood culture collection (0.5 - 1 mL) prior to antibiotics - Collect relevant screening samples (e.g. lumbar puncture, urine) according to suspected source if haemodynamically stable - Do not delay antibiotic administration for sample collection or test results	WITHIN 30 min
	4. Commence antibiotics	Prescribe and administer antibiotics according to the Australasian Neonatal Medicines Formulary (ANMF) BENZYL PENICILLIN OR AMPICILLIN plus GENTAMICIN If baby is severely unwell or deteriorating, discuss other infective sources and additional antimicrobials with appropriate expert clinician or NETS (e.g. CEFOTAXIME if suspected meningitis, ACICLOVIR, VANCOMYCIN)	WITHIN 60 min
	5. Consider fluid resuscitation	- If signs of shock, administer 10 mL/kg sodium chloride 0.9% bolus - Give 2 mL/kg glucose 10% plus maintenance fluids if: - BGL < 2.6 mmol/L (babies < 48 hours) - BGL < 3.0 mmol/L (babies > 48 hours)	
REASSESS & REFER	6. Reassess	- If signs of shock persist, discuss ongoing management including additional fluid bolus and/or vasopressors e.g. adrenaline (epinephrine) with a Neonatologist / NETS - Continue to monitor vital sign observations at a minimum frequency every 30 minutes for 2 hours, then hourly for 4 hours - Actively seek microbiology and other investigation results - Review treatment plan and consider viral screening - If no improvement or further deterioration occurs, escalate to higher level of care (e.g. Intensive Care / NETS) - Discuss management plan with the family / carers	
	7. Refer	☐ Intensive Care / NETS contacted	

NETS 1300 36 25 00

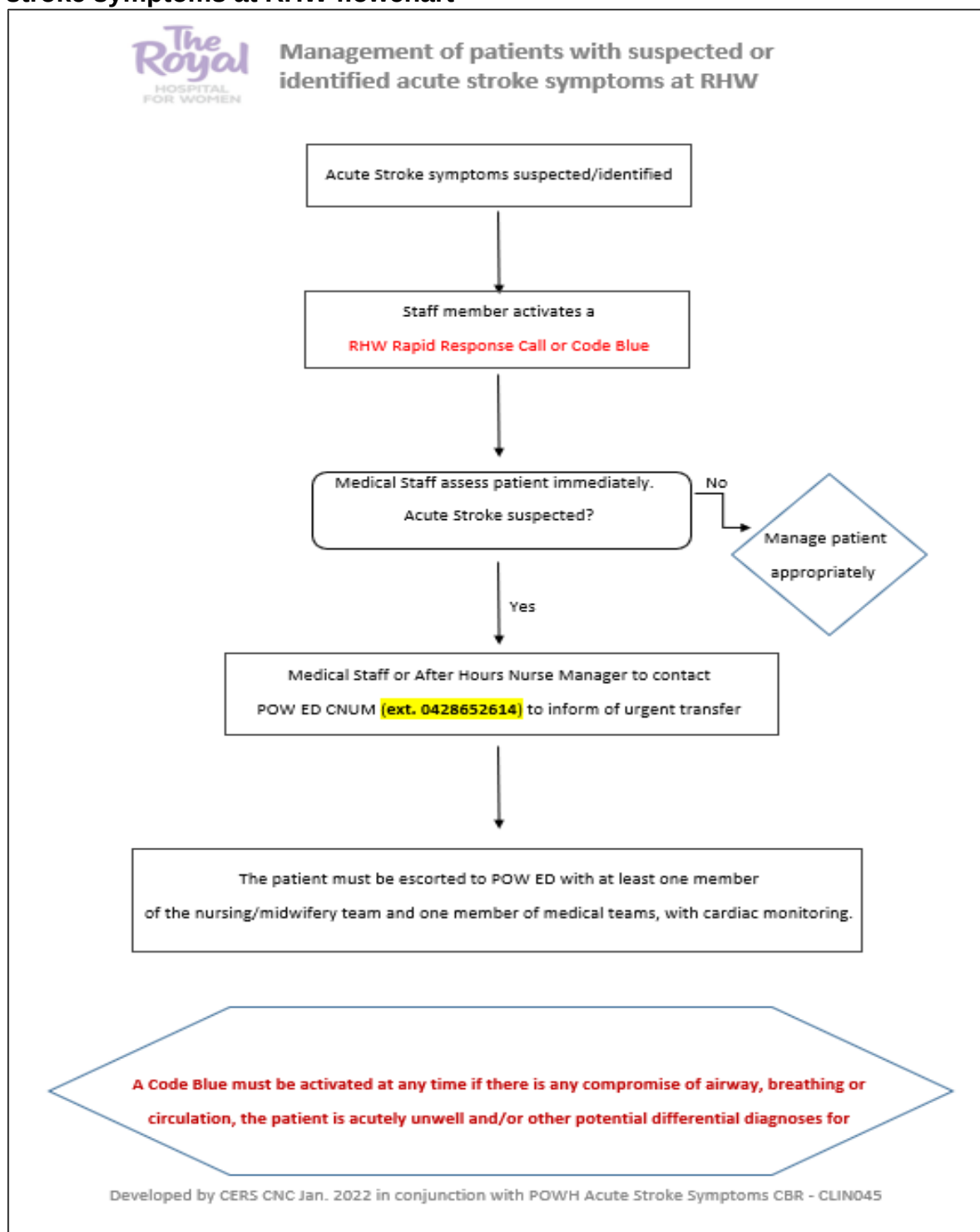
Print Name: _____ Signature: _____

Designation: _____ Date: ____/____/____

Clinical Emergency Response System (CERS) – Management of the Deteriorating Patient

RHW CLIN004

Appendix 8 Management of patients with suspected or identified acute stroke symptoms at RHW flowchart



Clinical Emergency Response System (CERS) – Management of the Deteriorating Patient

RHW CLIN004

Appendix 9

Escalation POWH Plastic's and Breast patients admitted under the POWH Breast Team

Applies to the following settings: Close Observation Unit, Macquarie Ward, Day Surgery Unit and Recovery Unit

CODE BLUE criteria met → Activate RHW Code Blue

RED ZONE criteria met → Activate RHW Rapid response call

CLINICAL REVIEW criteria met → Request Clinical Review by the relevant admitting team 0800-1700 weekdays

Breast surgery → POWH breast/endocrine registrar Breast plastics → POWH breast plastics registrar 1630 – 0800 weekday/weekend/ PHOL

A: Surgical site issues identified

Patient under care of Breast surgery team – POWH Surgical registrar Patient under care of Breast plastics patient – POWH Plastics registrar

B: **NO** surgical site issues identified - RHW RMO

Contacting POWH surgical teams for clinical reviews

1. Activate a RHW Clinical Review and ask:
2. "Please put me through to POWH switch. I need to contact the plastics registrar".
3. Once onto POWH switch state "I need to be put through to the Adults Plastics Registrar".
4. **STAY ON THE LINE.**
5. POWH switch will contact the plastics registrar who will CONNECT the NURSE on the line to the DOCTOR.
6. OR contact the plastics registrar directly (numbers available in the post-operative instructions or ward contact list)
7. If unable to contact the Registrar, contact the admitting consultant surgeon.

**Clinical Emergency Response System (CERS) –
Management of the Deteriorating Patient**

RHW CLIN004

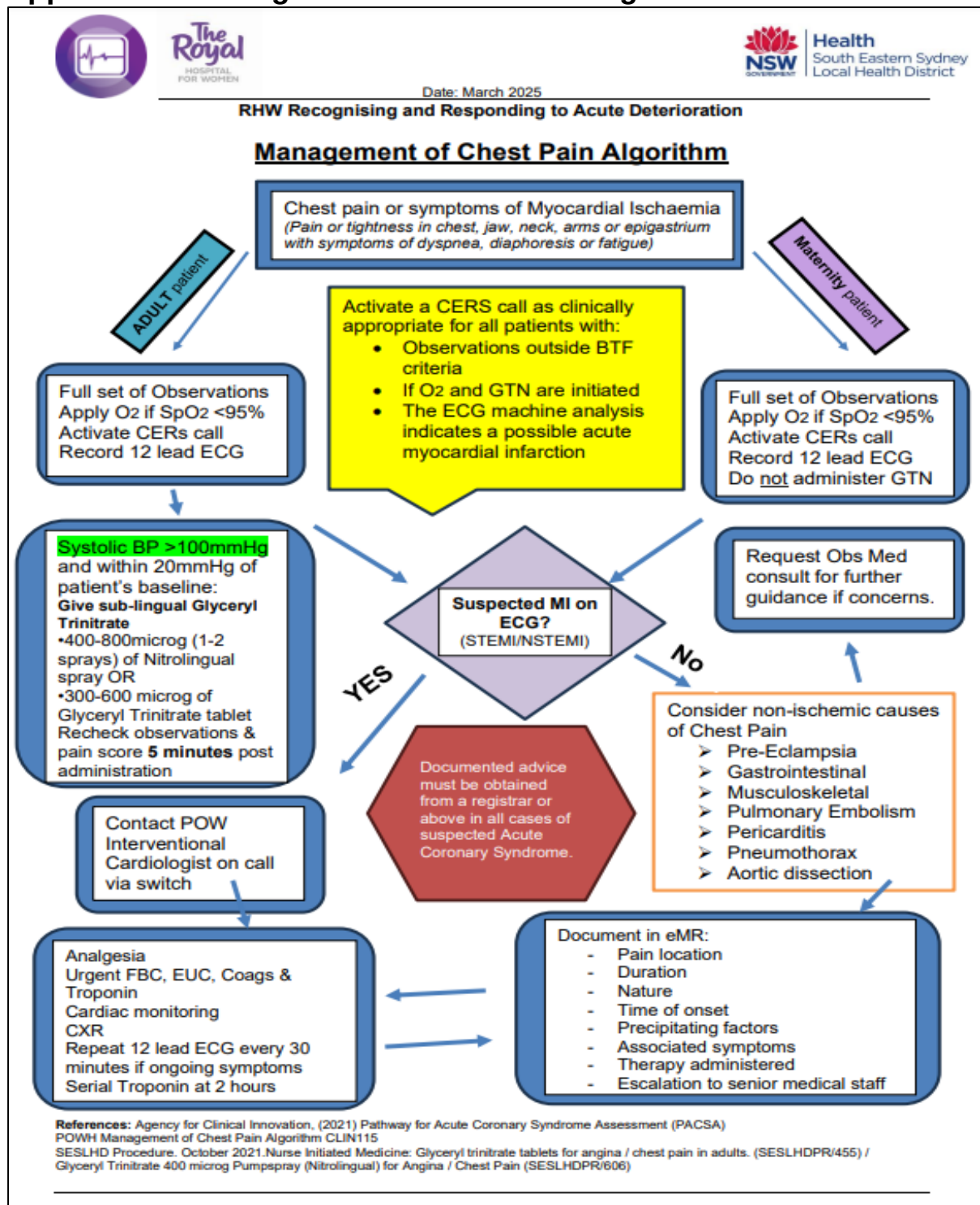
Breast surgical site issues requiring clinical reviews in breast/breast plastics patients include:

- Breast is:
- Cold, dark, pink, or purplish/ white with cap refill >3s and Doppler signal lost
- Sudden increase in drain output of frank blood
- Swelling, discoloration, signs of bleeding within breast
- Signs of poor perfusion in breast skin/ nipple

Clinical Emergency Response System (CERS) –
Management of the Deteriorating Patient

RHW CLIN004

Appendix 10 Management of Chest Pain Algorithm



Clinical Emergency Response System (CERS) –
Management of the Deteriorating Patient

RHW CLIN004

Appendix 11 Acute Anaphylaxis Flowchart

