# Policy for Performing and Responding to Observations in Adult Patients

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# Index

# Chapter

Page

4	A !		0
1	AIMS	3	
2	Scope		4
3	Backgroun	d	4
4	Sepsis		5
5	Staff trainir	ig and support	7
6	Documenta	tion	8
7	Physiologic	cal observations	8
	Hear	t rate	11
	Resp	iratory rate	11
	Temp	perature	11
	Bloo	d pressure	12
	Satu	rations/supplemental oxygen	12
	Conscious level		
	Urine output		
	Glucose monitoring		
8	Frequency of observations		
9	Post-operative observations		15
10	Assessing the patient		16
11	Seeking help (SBAR)		16
12	High Impact Teams (HIT)		16
13	Immediate measures		17
14	Monitoring		18
15	References and Bibliography		18
Appe	ndix One	NEWS Scoring Tool	20
Appe	ndix Two	Sepsis Care Bundle	21
Appe	ndix Three	SBAR Prompt Care	23
Appe	ndix Four	Sepsis Screening Flow-Chart	24



# 1. Aim

- To identify the appropriate physiological observations that must be undertaken on all adult patients within hospital.
- To recognise the deteriorating patient.
- Identify the immediate actions health care professionals should take having recognised a deteriorating patient.

# 1.1 Doing the right observations

- Physiological observations (vital signs) that must be undertaken on all adult inpatients at a minimum frequency of every 12 hours.
- All patients MUST have a NEWS (NHS Early Warning Score) calculated with their observations.
- The frequency of observations should be increased or decreased depending on the NEWS score or if the patient is in a high risk category i.e. post-surgery.
- Midwives MUST take account of the following specialty guidelines:
  - Care of women and their babies during labour and childbirth
  - Obstetric early warning score (MEOWS); physical observation of pregnant in-patients
  - Induction of labour
  - Recovery and Post-operative management of obstetric cases

# **1.2** Recognising the deteriorating patient

- How observations should be recorded and responded to
- Using the NEWS score to guide clinical decision making **See Appendix One.**
- The abnormal ranges of observations that should cause concern (guided by NEWS).
- Identification of sepsis
   See Appendix Two

# **1.3** Responding to deterioration

- How to make a referral for a deteriorating patient. See Appendix Three
- The initial actions that can be taken to prevent deterioration or promote a dignified death.



# Figure One: Overview of Reducing Harm from Deterioration



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#### 2. Scope

- 2.1 This policy applies to **all** adult in-patients within the Trust
- 2.2 This policy applies to **all** qualified and unqualified staff that have direct patient contact in the recording or interpretation of observations.

#### 3. Background

- 3.1 Patients in hospital are at risk of physiological deterioration.
- 3.2 Not all patient deterioration can be predicted so therefore all patients require close observation which includes the taking and recording of vital signs.
- 3.3 There is evidence that there is poor recognition of physiological deterioration and this leads to poor patient outcomes.
- 3.4 Although deterioration can be recognised through vital signs, these are not always regularly recorded.
- 3.5 If abnormal vital signs are recorded, appropriate action is not always taken.
- 3.6 Recommendations have included the use of hospital "early warning scoring" systems (NICE 2007). The use of an early warning scoring system has been established in the Trust since 2001, and has recently been updated to the National Early Warning Score (NEWS) recommended by the Royal College of Physicians (2011).
- 3.7 Some observations are not included in the NEWS score but still represent an important indicator of the patient's condition i.e. fluid balance.

The following guidance will include use of the NEWS system and other observations that should be heeded. The additional importance of "nurse concern" as a factor in predicting deterioration should not be underestimated, and any member of staff who is concerned about a patient should not hesitate to call for help.

# 4. Sepsis

## 4.1 What is Sepsis?

Sepsis can be defined as the body's response to an infection. An infection is caused by microorganisms or "germs" (usually bacteria) invading the body, and can be limited to a particular body region (e.g. a tooth abscess) or can be widespread in the bloodstream (often called "septicaemia" or "blood poisoning"). Sepsis is a medical emergency just like a heart attack or a stroke because there is an interruption of oxygen and nutrients to the tissues including the vital organs such as the brain, intestines, liver, kidneys and lungs.

# 4.2 Who is at risk?

Although everyone from an infant to an adult is at potential risk of developing sepsis from common infections (e.g. influenza, urinary tract infections, gastroenteritis, etc.), sepsis is most likely to develop in people who:

- Are very young (e.g. premature babies) or very old
- Have a weakened ("compromised") immune system, from any cause e.g. treatments such as chemotherapy for cancer, steroids (e.g. cortisone) for inflammatory conditions, etc.
- Have wounds or injuries, such as those from burns, surgical wounds or trauma
- Have certain addictive habits, such as alcohol or drugs
- Are receiving certain treatments or examinations e.g. intravenous catheters, wound drainage, urinary catheters
- Are more prone to develop sepsis than others because of genetic factors

Patients who are admitted to the hospital with serious diseases are at the highest risk of developing sepsis because of:

- Their underlying disease
- Their previous use of antibiotics
- The presence of drug-resistant bacteria in the hospital
- The fact that they often require an intravenous tube, urinary catheter, or wound drainage
- The infection leading to sepsis can be acquired outside the hospital (known as "community-acquired") or in the hospital (also known as "nosocomial"). Hospital-acquired infections are generally more difficult to manage than those acquired in the community, because:

The infecting microorganism is more dangerous to the patient because

- The patient is often already sick
- The microorganism may be resistant to common treatments

# 4.3 Is the occurrence of sepsis increasing?

Yes, sepsis is becoming more common, especially in the hospital, as a result of:

- Medical and technological advances associated with treatments
- The increasing number of elderly or debilitated people
- Patients with underlying diseases such as cancer, who require therapy
- The widespread use of antibiotics, which encourages
- The growth of drug-resistant microorganisms



# 4.4 There are three main forms of Sepsis

- Uncomplicated sepsis
- Severe sepsis
- Septic shock

The disease progresses in some people through all three stages. Despite optimal (best or most favourable) care, some patients may not respond to treatment, and may develop multiple organ disease and eventually die.

#### 4.4.1 Uncomplicated Sepsis

Uncomplicated sepsis, such as that caused by 'flu' and other viral infections, gastroenteritis, or dental abscesses, is very common and is experienced by millions of people each year. The majority of these people will not need hospital treatment.

### 4.4.2 Severe Sepsis

We estimate that more than 750,000 individuals develop severe sepsis in Europe every year and all need to be actively treated in the hospital. Severe sepsis arises when sepsis occurs in combination with problems in one or more of the vital organs, such as the heart, kidneys, lungs, or liver.

Because of problems with their vital organs, people with severe sepsis are likely to be very ill and are more likely to die (in 30-35 % of cases) than those with uncomplicated sepsis.

### 4.4.3 Septic Shock

Septic shock occurs when sepsis is complicated by low blood pressure that does not respond to standard treatment (fluid administration) and leads to problems in one or more of the vital organs as described above. The condition means that the body does not receive enough oxygen to properly function and drugs called vasopressors are used to raise the blood pressure. Septic shock patients are very ill and need rapid emergency admission to the hospital Intensive Care Unit (ICU). Despite active treatment in the ICU, the death rate is around 50%.

#### 4.4.4 Systemic Inflammatory Response Syndrome (SIRS)

SIRS is the body's inflammatory response and can produce similar symptoms to sepsis but there is no pathogenic cause. Common causes of SIRS include burns, trauma and pancreatitis. Antibiotics are not required for a SIRS response as there is no bacterial cause. Other signs and symptoms such as tachycardia, hypotension and pyrexia may still occur and should be treated as for sepsis / severe sepsis / septic shock.

# 4.5 How to recognise sepsis. Please refer to the Trust Care Bundle Appendix Two

**4.5.1** Clinical evidence of infection PLUS a systemic response indicated by two or more of the following:

- High or low temperature >38.3°C or < 36°C.
- Tachycardia > 90 beats per minute
- High respiratory rate >20 breaths per minute
- High or low white cell count >12 x 109/l or  $< 4 \times 109/l$

- Acutely altered mental state NEW onset confusion
- Hyperglycaemia in the absence of diabetes
- Severe sepsis sepsis PLUS organ dysfunction e.g. hypotension, low urine output, acute kidney injury, hypoxaemia, ARDS, metabolic acidosis, clotting abnormalities, new confusion / reduced conscious level.

# 4.5.2 Recognition

Any patient with a NEWS score of 5 or more must be screened for sepsis using the screening tool in Appendix Two.

- A doctor / Nurse practitioner should review the patient within 30 minutes if sepsis is suspected.
- If the patient has been screened for sepsis and the sepsis bundle has been commenced within the last 12 hours the patient does not need to be rescreened – they do however, need highlighting to the critical care outreach team (CCOT) / Hospital at night (H@N) and the parent team (See Appendix Four)
- If the patient has been screened for sepsis within the last 12 hours and **sepsis** was not identified they should be re-screened (See Appendix Four)
- The Sepsis 6 screening tool should be available in all in-patient areas.

# 5. Staff training and support

There are a number of resources that can be used to support ward staff in obtaining the skills, knowledge and expertise in the physiological assessment of patients, NEWS scoring and initial first hand management of critically ill patients. This can be done at the bedside or organised more formally in clinical areas or the classroom.

- Clinical experts (CCOT, senior ward staff, medical teams, clinical nurse educators, clinical nurse specialists)
- The Acute Illness Management Course (AIMS)
- Immediate Life Support (ILS) course (both AIMS and ILS are regularly run by Resuscitation Services, see Resuscitation Services Webpage).
- Introduction to Managing the Sick Ward Patient.
- Royal College of Physicians e-learning for NEWS <u>http://tfinews.ocbmedia.com/</u>
- On line Clinical Observations Training Pack
   <u>http://intranet/subsites/Resuscitation\_Services/</u>

The ward manager / leader is responsible for the undertaking of observations within their ward area and ensuring that all staff have the appropriate knowledge and skills to undertake this duty. Continuing competence / safety of practice should be discussed and recorded at staff's annual appraisal.

# 6. Documentation

- 6.1 All patient observations sheets MUST have the patients name and NHS number recorded.
- 6.2 All patients should have heart rate, heart rhythm, respiratory rate, blood pressure, level of consciousness, oxygen saturation and percentage of supplemental oxygen, blood glucose and temperature recorded on admission.
- 6.3 All patients should have a NEWS score attributed to every set of observations.



- 6.4 If the patient has a chronic illness that affects their physiological observations this should be documented in the patients records. In this case a senior doctor (registrar / consultant) or senior nurse (nurse practitioner / nurse consultant) may amend the NEWS Score alert level by resetting a 'base-line'. If the score is amended the new trigger MUST be recorded in both the medical and nursing notes and also on the NEWS chart and communicated to all staff who are looking after that patient.
- 6.5 All patients should have their weight recorded on admission unless this is impossible for practical reasons i.e. a trauma patient who goes directly to theatre. In this situation the patients should be weighed at the earliest opportunity. There is evidence to suggest that estimated patient weights and indeed self-reported weights are inaccurate and can be detrimental to patient care e.g. in the dosing of medications.
- 6.6 All patient observations should be recorded on the Trust observation chart (NEWS).
- 6.7 Patients must retain the same observation chart, especially when moving between wards and departments so that physiological trends can be identified.
- 6.8 Physiological observations should be monitored, as a minimum, every 12 hours unless a decision has been made at a senior level to decrease this frequency of observation.
- 6.9 The rationale for this should be recorded in the patients' records.

The frequency of monitoring should increase when abnormal physiology is detected or the patient is at risk of deterioration for example post-surgery.

- 7. Physiological observations that should be undertaken on adult inpatients.
- 7.1 There are six main physiological observations that are measured as part of the routine physiological monitoring for patients, and these are included on the NEWS scoring system
  - Pulse
  - Respiration rate
  - Blood pressure
  - Level of consciousness
  - Oxygen saturation/supplemental oxygen
  - Temperature
- 7.2 Abnormal observations should initiate an "*alert*" (<sup>®</sup>). Abnormal ranges are provided by the NEWS scoring. NEWS score consists of six measured variables; respiratory rate (RR), heart rate (HR), systolic blood pressure (SBP), conscious level, oxygen saturation and supplemental oxygen and temperature
- 7.3 The range for each observation scored is between 0 and 3, with a score of 0 being in the range, and 3 is most deranged. The total NEWS score is derived by adding the six scores to get a total between 0 and 20, with 20 being the most deranged. A guide to abnormal ranges in other parameters is discussed below.
- 7.4 An *alert* should cause the practitioner to stop and think about the implications for the patient. An *alert* should prompt one or more of the following depending on the severity of the patient's condition (the NEWS graded response should be followed);
  - extra vigilance (additional observation parameters being measured)

- <sup>\*</sup> further assessment and intervention by a senior nurse / doctor
- \* referral to the patients' medical / surgical team
- referral to CCOT / H@N
- <sup>®</sup> urgent referral to senior medical staff or CCOT
- cardiac arrest call or medical emergency team call
- patients scoring 7 or more on the NEWS chart should initiate an emergency call (2222) for High Level Intervention team (HIT call)



# Figure Two – Alert Algorithm

NEWS SCORE	FREQUENCY OF MONITORING	CLINICAL RESPONSE
0	Minimum 12 hourly	<ul> <li>Continue routine NEWS monitoring with every set of observations</li> <li>Fluid balance recording for high risk groups</li> </ul>
Total: 1-4	Minimum 4-6 hourly	<ul> <li>Inform registered nurse who must assess the patient</li> <li>Registered nurse to decide if increased frequency of monitoring and/ or escalation of clinical care is required</li> <li>Fluid balance recording for high risk groups</li> </ul>
Total: 5 or more or 3 in one parameter	Increased frequency to a minimum of 1 hourly	<ul> <li>Registered nurse to urgently inform the medical team caring for the patient</li> <li>Urgent referral to Critical Care Outreach Team</li> <li>Patient must have fluid balance recorded, input/output</li> <li>NEWS ≥ 5 – Screen for sepsis</li> </ul>
Total: 7 or more	Continuous monitoring of vital signs	Registered nurse to immediately inform the medical team – this should be at least Specialist Registrar level     Emergency call to team with High-Level Intervention Skills (HII)     Consider transfer of Clinical care to a level 2 or 3 care facility
Please see rext page for explained	lory text about this chart.	toyal College
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#### Outline clinical response to NEWS triggers

7.5 Once a patient triggers an increase in frequency of observations this frequency MUST be continued for at least 4 hours and be performed by a registered practitioner. At each observation the patient should be reassessed and care escalated according to their conditions. After four hours of review the patient should be assessed by the registered practitioner and depending on the results of this review i.e. patient is deemed as stable subsequent observations may be delegated to non-registered staff under the supervision of the registered practitioner.

# 7.6 Heart Rate

- The pulse is a reflection of the heart rate and is frequently measured via the saturation probe on the automated blood pressure machine; it will therefore be measuring the pulse in the finger. This poses three issues;
  - The pulse might not reflect the true heart rate.
  - Pulse properties cannot be determined, i.e. volume and regularity.
  - Practitioners cannot develop expertise in assessing pulse properties.
- A manual pulse MUST be taken with every set of observations to assess the pulse properties, and develop and maintain practitioner expertise.
- If the pulse rate is irregular or the patient is known to be in atrial fibrillation, then the apex beat or similar technique should be used to assess the patient heart rate.
- Staff should note electronic blood pressure machines are known to be unreliable in patients who have atrial fibrillation.
- It MUST be documented on the NEWS chart whether the heart rate is regular or irregular
- A 12 lead ECG MUST be performed at the earliest opportunity on any patient who has a new irregular pulse noted, or any other concerns with their pulse.
- A pulse rate of > 90 beats/min or < 50 beats/min should initiate an *alert* and the graded response followed. The rate and regularity should be checked and recorded.
- Sepsis should be considered when the heart rate is > 90 beats/min.
- Patients receiving a rate limiting medication i.e. beta blocker will not be able to increase their heart rate to compensate for hypoperfusion conditions, and therefore other abnormal signs (high respiratory rate and low urine output) will have extra significance.

# 7.7 Respiration rate

- Respiratory rate is the most sensitive indicator of deteriorating physiology and MUST be recorded in all patients.
- A respiratory rate of < 12 breaths/min or > 20 breaths/min should initiate an *alert* and the graded response followed.
- Depth, symmetry and pattern of respiration should also be noted and recorded if abnormal.

#### 7.8 Temperature

- Oral temperature measurements are the most reliable and used wherever possible. If oral measurements are not obtainable e.g. facial trauma, axilla temperature readings utilising a contact thermometer are preferable to tympanic.
- Staff should record whether the temperature has been obtained orally or via the axilla.
- Low temperature is as significant as high temperature. The Surviving Sepsis campaign defines one of the parameters for sepsis, as having a core temperature of > 38.3°C or < 36°C.

However, there will be some patients who are immuno-compromised as a result of their condition or current or previous treatment for example; chemotherapy and bone marrow transplant. These patients who develop a temperature >38.0°C should be

treated as a high risk sub-group and trigger an urgent senior review. For those patients on active chemotherapy, immediate reference should be made to the Trust Policy for the Management of Suspected Infection in Neutropenic Patients.

- Hypothermia is defined as a core temperature < 35°C, which can become fatal at < 32°C. Hypothermic patients should be warmed slowly using blankets, warm fluids and a Bair Hugger.
- Oral temperature readings are preferable. Axilla readings are second choice.
- If available rectal / bladder temperature monitoring is accurate and should be used where very high or very low (>40°C or <35°C) temperatures are recorded.

# 7.9 Blood pressure

- The correctly sized blood pressure cuff MUST be used when recordings are made. One size does not fit all patients.
- Systolic blood pressure (SBP) less than 100 mmHg should initiate an *alert*.
- A SBP ≤ 90mmHg may be a sign of severe sepsis and requires further assessment of the patient (Surviving Sepsis Campaign 2006)
- The SBP should be greater than the heart rate. If the heart rate increases above the SBP it should initiate an *alert*.
- Falling blood pressure should be regarded as late sign of deterioration.
- In cases of very low blood pressure, the electronic BP measuring devices may not be accurate. Manual sphygmomanometers MUST be available to all areas and staff should be competent to use them.
- If the pulse is irregular, the accuracy of electronic BP measuring devices may not be accurate. If the patient's pulse is irregular, manual recording of blood pressure must be undertaken.
- Electronic blood pressure machines are known to become less reliable below 80 mmHg systolic. Therefore all patients with blood pressures below this level MUST have a manual recording undertaken.

# 7.10 Oxygen Saturation/Supplemental oxygen

- Oxygen saturation is the fifth vital sign
- Oxygen saturation (SpO<sub>2</sub>) and the amount of oxygen at the time of the recording i.e. air or % of oxygen should be recorded on all patients on admission and with every set of observations.
- For most patients a target oxygen saturation should be 94% or above. The exceptions are patients at risk of hypercapnic respiratory failure (usually patients with moderate or severe chronic obstructive pulmonary disease, severe chest wall or spinal disease, neuromuscular disease or severe obesity) for this group the target oxygen saturation is usually set at 88 to 92% until arterial blood gases have been checked.
- Unless normal for that patient, a saturation ≤ 91%, with or without supplemental oxygen needs to be addressed urgently.
- The concentration of supplemental oxygen should be recorded and scored. The oxygen delivery device should also be documented.
- Patients on oxygen should have a saturation / partial pressure proportional to their inspired oxygen. If the patient has low saturations / partial pressures despite high flow oxygen then this is a sign of severe illness.
- If the patient has an oxygen saturation reading ≤ 91%, the device, flow and wall outlet should all be checked to ensure optimum oxygenation.

- Oxygen saturation does not measure carbon dioxide, and arterial blood gases should be considered in all patients with abnormal SpO<sub>2</sub>, breathing difficulties or unexplained low levels of consciousness.
- Oxygen saturations will not be accurate in patients with hypoperfusion conditions, those with irregular heart rhythms, or those who have been exposed to smoke inhalation. A capillary refill time (CRT) test and mottled knee sign can give further information on the patients' perfusion and may initiate an *alert*.

# 7.11 Conscious level

• Conscious level should be initially assessed on all patients using the AVPU scale. Unless they have a primary neurological problem when the Glasgow Coma Score (GCS) should be used by a competent practitioner.

	AVPU scale	
Α	Alert	Awake
V	Responds to voice	Lethargy
Р	Responds to pain	Stupor
U	Unresponsive	Coma

- Deteriorations in conscious level can be caused by many factors, and a more comprehensive physical assessment should be undertaken by a competent practitioner.
- A response only to pain or unresponsive, correlates to a GCS of ≤ 8 and should be treated as a medical emergency.
- Any deterioration in conscious level should be followed by a more in depth assessment of GCS.
- Patients having seizures are at significant risk and should have a senior medical review.
- A blood glucose should be taken and recorded in all patients with a reduced conscious level.

# 7.11.1 Neurological Observations

 If a patient is having their observations recorded on a neurological observation chart they still need their NEWS score calculating and recording

# 7.12 Urine output

- The optimum urine output is 1ml / kg / hr. In a 70kg adult this is equal to 70 mls/hr. The minimum desired urine output is 0.5mls / kg / hr, which is equal to 35 mls/hr. Urine output is generally assessed over a two hour period.
- In the majority of patients urine output does not need to be routinely measured, but should be considered in the following instances;
- Patients where NEWS score is rising. In these instances the patient should have their fluid input and urine output accurately measured with their routine observations
- Other fluid losses should also be accurately recorded including stoma output, any drains, NG losses etc.
- 'High Risk' patients including;
  - Patients with other abnormal signs such as high fever

- Patients with other abnormal fluid losses such as vomiting, drains, stomas or diarrhoea
- Patients receiving intravenous fluids or nasogastric feed
- Patients who are fluid restricted
- Post-operative patients
- Patients with acute kidney injury

# 7.13 Fluid charts

- When a fluid chart is in use it should be fully filled in with both input and output fluid and quantity.
- Patients receiving IV fluid should have a fluid chart in progress.
- All patients who have an Acute Kidney Injury (AKI) should only have fluid replacement therapy via an infusion pump. For Further information on AKI please refer to the Trust Guideline on Acute Kidney Injury. All patients with an AKI should be recorded on the Trusts Electronic AKI system
- Input / output totals should be added up with each set of observations so that a current fluid balance is recorded.
- Daily and cumulative balances should be entered onto the relevant part of the generic observation chart.
- Insensible losses are not normally recorded, but should be accounted for in patients with fluid balance problems. Normal insensible loss is approximately 1L in 24 hours but can greatly increase when a patient has a high temperatures or rapid respiratory rate.
- If a patient requires fluid monitoring then staff should record an estimate of volume whenever possible. The recording of + or ++ or PU'd is not considered acceptable.

# 7.14 Glucose monitoring

Glucose monitoring is an important part of patient assessment. A blood glucose should be recorded for:

- All patients on admission
- All patients with NEWS score 5 or more
- All patients nil-by-mouth
- All patients receiving NG/PEG feed
- All patients receiving TPN
- Any patient with altered conscious level
- Patients with diabetes
- Use of sliding scale insulin / glucose monitoring as appropriate

# 8. Frequency of observations

8.1 The frequency of observation recording will depend on the patients' condition. The following are recommended as a guide:

National Early Warning Score (NEWS)

- NEWS = 0 Minimum 12 hourly observations
- NEWS = 1 4 Minimum 4 6 hourly observations
- NEWS = 5 or more OR 3 in one parameter

Minimum 1 hourly observations

• NEWS = 7 or more Continuous monitoring / observations

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#### 9. Post-operative observations

- 9.1 The registered nurse / midwife may delegate post-operative observations to a nominated other for example; a student nurse or assistant practitioner. However, the registered nurse / midwife remains accountable for, and to act on the results and MUST review all delegated observations with the staff who conducted the observation. This should include a visual assessment of the patient. The registered nurse / midwife MUST personally perform and record the observations on any post-operative patient under their care who has experienced a worsening of NEWS score within the last 12 hours or where there is professional / patient / relative concern regarding the condition of the patient.
- 9.2 Post-operative observations should not be seen as a routine procedure to be continued over a fixed number of hours but as a procedure to be continued only as long as is required by the patient's individual condition. Following the immediate post-operative period, the frequency of observations should be re-assessed and subsequent observations undertaken in response to this assessment. The frequency of observations required for the individual patient should be clearly documented in their plan of care.

The National Patient Safety Agency (NPSA) has reported a failure to recognise deterioration in patients following Laparoscopic surgery that has led to over 40 deaths nationally. They state that the most common cause of death post laparoscopic surgery is delayed recognition of deterioration. Post laparoscopic patients should be monitored using the same rigour as post open surgery patients. The NPSA suggests that the following within the first 12 hours of surgery may be indicative of a post-operative complication and should trigger prompt senior review

- 1. Abdominal pain needing opiate analgesia
- 2. Anorexia or reluctance to drink
- 3. Reluctance to mobilise
- 4. Nausea
- 5. Vomiting
- 6. Tachycardia
- 7. Abdominal tenderness
- 8. Abdominal distension
- 9. Poor urine output
- 10. Cardiac arrhythmia

# 10. Assessing the patient

- 10.1 Vital signs and the NEWS score will give an indication of the patients' condition. If the patient is deteriorating, a more comprehensive assessment is warranted.
- 10.2 The ABCDE model of assessment is recommended as it gives a rapid, initial assessment of the patients' condition.
- 10.3 Basic guidance on ABCDE assessment can be found in the AIMS manual
- 10.4 Help must be sought as soon as possible if any practitioner feels unable to adequately deal with the situation, or feels that the patient could deteriorate further.



# 11. Seeking help

- 11.1 Any concerns about the patient must be relayed to the clinician responsible for the care of the patient, and recorded in the patients' records. Staff should use the table in Figure Two (summary on all observation charts) to decide when to seek help
- 11.2 The CCOT / H@N should be called if the NEWS score is ≥ 5, or there are any other concerns about the patient.
- 11.3 Other experts may be required to deal with the patient and there should be no delay in seeking their assistance.
- 11.4 If the most immediate clinician is unavailable or delayed, then the next in line should be contacted immediately
- 11.5 If the NEWS score is 7 or more then the patient is critically unwell and HIT call should be made immediately.
- 11.6 SBAR should be used to convey information when calling for help:

### 11.6 SBAR Situation

- Identify yourself the site / unit you are calling from
- Identify the patient by name and the reason for your report
- Describe your concern

Firstly, describe the specific situation about which you are calling, including the patient's name, consultant, patient location, resuscitation / escalation status, and vital signs. An example of a script would be:

"This is Tracy, a registered nurse on EAU. The reason I'm calling is that Mrs Taylor in bed 4 has become suddenly short of breath, her oxygen saturation has dropped to 88 per cent on room air, her respiration rate is 24 per minute, her heart rate is 110 and her blood pressure is 85/50. We have placed her on 6 litres of oxygen and her saturation is 93%, her work of breathing is increased, she is anxious, her breath sounds are clear throughout and her respiratory rate remains greater than 20. She is for resuscitation and escalation of care."

#### B Background:

- Give the patient's reason for admission
- Explain significant medical history
- You then inform the doctor / CCOT / H@N of the patient's background: admitting diagnosis, date of admission, prior procedures, current medications, allergies, pertinent laboratory results and other relevant diagnostic results. For this, you need to have collected information from the patient's chart, flow sheets and progress notes. For example:

"Mrs. Smith is a 69-year-old woman who was admitted ten days ago, following a road traffic accident, with a T 5 burst fracture and a T 6 ASIA B SCI. She had T 3-T 7 instrumentation and fusion nine days ago, her only complication was a right haemothorax for which a chest drain was put in place. The chest drain was removed five days ago and her CXR has shown significant improvement. She has been mobilising with physio and has been progressing well. Her haemoglobin is 100 g/L; otherwise her blood results are within normal limits. She has been on Enoxaparin for DVT prophylaxis and codeine for pain management."



# A Assessment:

- Vital signs
- Clinical impressions, concerns

You need to think critically when informing the doctor / CCOT / H@N of your assessment of the situation. This means that you have considered what might be the underlying reason for your patient's condition. Not only have you reviewed your findings from your assessment, you have also consolidated these with other objective indicators, such as laboratory results.

If you do not have an assessment, you may say: "I'm not sure what the problem is, but I am worried."

# R Recommendation:

- Explain what you need be specific about request and time frame
- Make suggestions
- Clarify expectations

Finally, what is your recommendation? That is, what would you like to happen by the end of the conversation with the doctor / CCOT / H@N? Any order that is given on the phone needs to be repeated back to ensure accuracy.

"Would you like me to commence the sepsis care bundle" "Should I commence intravenous fluids" "When are you going to be able to get here?"

## An example of an SBAR prompt card is illustrated in Appendix Three.

# 12. High-level of Intervention Team (HIT)

- The HIT model allows ward staff to access immediate specialist care for the critically unwell patient.
- When the NEWS score is 7 or more or if the ward nurse has major concerns a HIT call should be made.
- The call will be screened by a member of the CCOT / H@N team (or middle grade doctor if not available) who will then initiate a response. This may include:
  - Review and intervention
  - Referral to parental team for DNACPR
  - o Immediate senior review by a clinician skilled in critical care
  - o Admission to the Intensive Care Unit

#### 13. Immediate measures

- 13.1 Simple early measures can often prevent further deterioration of the patient and may avoid the need to admit to higher levels of care.
- 13.2 Interventions will depend on the patients' vital signs and initial assessment but include some of the following;
  - Appropriate positioning of the patient (e.g. sat up / recovery position)
  - Checking that the optimum amount of oxygen is being delivered
  - Checking that vital medications have been given
  - Giving appropriate 'as required' (PRN) medications
  - Checking that infusions are running and up to date



- Physiotherapy
- Establishing IV access and requesting U&E and FBC
- Commencing IV fluids while the situation is being assessed

## 14. Monitoring

The effectiveness of this policy will be monitored through the Quality and Safety Dashboard as part of the Trust's commitment to ensure safe and effective working. This will be monitored by the Mortality Reduction Committee (Under Review).

### 15. References and Bibliography

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#### **APPENDIX ONE**

#### **NEWS scoring tool**





# Appendix TWO: Trust Sepsis Assessment Form



Some aspects may be inappropriate for some patients. Always exercise your clinical judgement and seek senior advice if you are unsure of what to do. Please also refer to detailed sepsis guideline on the intranet.

# Think SEPSIS!!

CESC approved May 2014 (V3) Review May 2016 CESC/2014/130 (appendix 2)

# A. Complete Sepsis 6 Care Bundle in 1 hour: 3 Treatments

Date: Time: Staff name:	Designa	tion:	Ward	
<b>1. Give high-flow oxygen</b> The British Thoracic Society guidelines recommend aiming for SaO <sub>2</sub> 94-98%, unless patient is at risk of hypercapnic respiratory failure when you should aim for an SaO <sub>2</sub> of 88-92%	Time started	Name	Reason not done or result	
2. Give antibiotics within 1 hour If you can, take blood cultures first but <u>DO NOT</u> delay giving antibiotics Consider checking any microbiology results for sensitivities Follow the ULHT guidelines and check for allergies		Name	Reason not done or result	
3. Give fluid challenge If systolic BP <90mmHg give: 30ml/kg of 0.9% sodium chloride (Weight of patient =	Time started	Name	Reason not done or result	



# Think SEPSIS!!

CESC approved May 2014 (V3) Review May 2016 CESC/2014/130 (appendix 2)



# Appendix Three: example of SBAR Prompt Card







# Appendix Four: Sepsis Screening Flow Chart

#### Sepsis Screening



# Policy for Performing and Responding to Observations in Adult Patients

#### Names of people consulted about the document:

Alun Roebuck Consultant Nurse Cardiology and Acute Care Nick Fox - Critical Care Outreach Practitioner Pilgrim Mark Carpenter - Critical Care Outreach Practitioner Lincoln **Diane Eady - Clinical Educator Critical Care Lincoln** Sharon Sinha - Clinical Governance Co-Ordinator Matthew Donnelly- Resuscitation Officer Adam Wolverson - Clinical Director Critical Care and Anaesthetics (Lincoln and Grantham) Steve Cross - Patient Safety Manager Rick Dickinson - Risk Manager Elizabeth Grooby - Matron for Maternity and Gynae Services Lincoln Jennifer Hinchiffe - Macmillan Lead Nurse for Cancer and Palliative Care David Flynn – Head of Service A&E Lincoln Joanne Denman – Acute Care Practitioner Lincoln Sarah Southall – Matron Lincoln Michelle Rudd – Nurse Consultant Emergency Care Lincoln Helen Callahan – Nurse Consultant Emergency Care Pilgrim Jeffrey Khoo – Consultant Cardiologist Grantham Caroline Wood - Clinical Educator Critical Care Pilgrim Carole Hay - Critical Care Outreach Practitioner/ Pain Nurse Grantham Paul Jones – Clinical Engineering Lincoln Chris Hacking – Clinical Engineering Lincoln

Names of committees required to approve the document:	Approved on
Clinical Effectiveness Steering Committee	Chair of CESC approved 18 December 2012
Clinical Effectiveness Steering Committee	Approved V2 21 May 2014
Drugs Therapeutic Committee	Approved V2 2 April 2014 (subject to changes now made)

# Version History Log

This table should detail the version history for this document. It should detail the key changes when a version is amended.

Version	Date Implemented	Details of key changes
V1.0	March 2012	New Document
V2.0	May 2014	<ul> <li>Wholesale change from Track and Trigger scoring to using the NHS Early Warning Score (NEWS)</li> </ul>
		<ul> <li>Minor revision on temperature and audit</li> </ul>
		<ul> <li>New section on fluid balance and glucose monitoring</li> </ul>
		<ul> <li>Updated Appendix 2 – Sepsis Care Bundle V3 which was also approved by CESC May 2014.</li> </ul>

# **Equality Impact Assessment**

Name of the policy, service or function being assessed:	Policy for Performing and Responding to Observations in Adult Patients			
Aim of the policy	To ensure consistency of the performing and responding to physiological observations in adults			
Which population or groups the policy (or section) is intended to benefit and how	All adult patients other than obstetric patients			
Related policy areas that may be affected by changes in this policy	Sepsis policy now incorporated in this document			
Directorate	All Directorates			
Date Impact Assessment completed	14/05/14			
Is this a policy, service or function?	Policy			
Is this a new or existing policy, service or function?	Revised Policy			
Names and roles of the people carrying out the Impact Assessment	<ul> <li>Alun Roebuck Consultant Nurse in Cardiology and Acute Care (Pan Trust).</li> <li>Jane Murray Critical care Outreach Sister, Lincoln.</li> </ul>			



## **Step 1 Screening**

	Race	Disability	Gender	Age	Sexual Orientation	Religion or Belief
Do different groups have different needs, experiences, issues and priorities in relation to the proposed policy	Low	Low	Not relevant to pregnant women	Not Relevant to Children	Low	Low
Is there potential for or evidence that the proposed policy will promote equality of opportunity for all and promote good relations between different groups	Low	Low	Low	Low	Low	Low
Is there potential for or evidence that the proposed policy will affect different population groups differently (including possibly discriminating against different groups)	Low	Low	Low	Low	Low	Low
If you have identified potential discrimination, are any exceptions valid, legal and/or justifiable?	Low	Low	Low	Low	Low	Low
What alternatives are there to achieving the policy/guidance without the impact? Can we reduce the impact by taking different action?	Low	Low	Low	Low	Low	Low

Impact: Low/Medium/High (\*delete as appropriate)

Low - go to step 4 / Medium - go to step 2 / High - go to step 2



Policy for Performing and Responding to Observations in Adult Patients

#### Step 2 Partial Equality Impact Assessments

In carrying out a partial impact assessment you may need to consult with any relevant groups (e.g. representative groups, staff groups).

Write short notes to explain why you have drawn your conclusions including any evidence (of whatever type) that you have to support your assessment:

NEWS is the NHS Early Warning Score and thus interested parties have already been canvased at National Level for further information see Royal College of Physicians web page/ news

# Do different groups have different needs, experiences, issues and priorities in relation to the proposed policy:

Race: No

Religion or belief: No

Age: Not relevant for children – use the PEWS System

Gender Not gender specific but pregnant women should be scored using MEWS

**Disability: No** 

Sexual orientation: No

#### Is there potential for or evidence that the proposed policy will promote equality of opportunity for all, eliminate discrimination and promote good relations between different groups:

Race: No

Religion or belief: No

Age: No

Gender: No

Disability: No

Sexual orientation: No

Is there potential for, or evidence that the proposed policy will affect different population groups differently (including possibly discriminating against different groups)

Race: No

Religion or belief: No

Age: No

Gender: No

**Disability: No** 

Sexual orientation: No

If you have identified potential discrimination, are any exceptions valid, legal and/or justifiable?
Race: No
Religion or belief: No
Age: No
Gender: No
Disability: No
Sexual orientation: No
What alternatives are there to achieving the policy/guidance without the impact? Can we reduce the impact by taking different action?
Race: No
Religion or belief: No
Age: No
Gender: No
Disability: No
Sexual orientation: No
At this stage are there people who may be affected by the policy area whose views and experiences should be sought? (e.g. staff groups, representative groups):
Race: No
Religion or belief: No
Age: No
Gender: No
Disability: NO
Sexual orientation: <b>No</b>

Indicate whether you believe the policy requires a full impact assessment. If you still have concerns about the impact of the policy, continue to a full impact assessment.

Full Impact Assessment required: No (\*delete as appropriate)

Yes - go to Step 3, No - go to Step 4

#### Step 3 – Full Impact Assessment

Using the information you have gathered so far in the screening and partial equality impact assessment stages, consider the aims of the policy and the evidence you have gathered on the impact of the policy on different groups.

#### Consultation

Consult internally with all staff, including trade unions and staff associations. Consult externally with relevant stakeholders who are interested in promoting equality from individuals to community groups. You need to ensure that you make your consultation accessible to all groups.

Who will be affected by the policy?	
Who will you consult with?	
How do we ensure that those affected are consulted effectively?	
What methods of consultation will be used?	
How will information be made available to those consulted?	

Consider policy alternatives

The decision on whether to implement the policy should be based on the following key factors:

- The aims and objectives of the policy.
- The results of the impact assessment.
- The relative merits of other policies.
- The results of your consultation

Can changes be made to the policy?	
Can the policy be implemented in a different way?	
If so, could the alternative lead to adverse impact for other equality groups?	
Would a different policy still achieve the aims and objectives of the original	

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policy, but avoid any adverse impact on equality.

Go to step 4

#### Step 4 Monitoring and publishing

The policy should be monitored regularly. It is a requirement to monitor existing policies for any adverse impact.

The impact assessment process is not a one off exercise. The actual impact of the proposed policy will only be evident when it is put into practice, so it is advised that you plan to review the policy within 6 months.

Where a policy has high impact, address the identified actions within a year. You should consider the following questions when planning how to monitor the new policy:

How will the policy be monitored after full implementation?	Adherence will be monitored via the Trust quality dashboard
Have you planned reviews of the policy? If so, how often and who will be responsible?	2 years
Will you carry out a further impact assessment and consultation to check if the policy is not resulting in adverse impact? If so, when is this likely?	No

The Trust will publish the results of the assessments, consultations and monitoring carried out to meet the duty and make these available to the public.

Summaries of the impact assessments will be published annually in the Annual Diversity Report and will be published on the Trust Internet site.

For advice in respect of completing this

