

Sepsis Primary Care Resource Pack

The Derbyshire Primary Care approach to the Identification
Management and Treatment of Sepsis



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Introduction

This resource pack provides a collection of tools, knowledge, and current guidance to support the identifying and appropriate management of patients with sepsis. It is aimed at all members of the practice team, with resources for non-clinical team members and for clinical staff assessing patients with acute infection. Links for training for all members of the team can be found at the end pack.

The resource also includes safety netting information for patients and those close to them to look for when concerned about a sudden deterioration in a person's health in the presence of infection, which can be given following a consultation.

NICE guideline [NG51] Sepsis: recognition, diagnosis and early management

NICE guidance in relation to Sepsis can be found at the link below. NICE updated this guideline in April 2019 to include the national early warning score (NEWS2) endorsed by NHS England.

<https://www.nice.org.uk/guidance/ng51/resources/sepsis-recognition-diagnosis-and-early-management-pdf-1837508256709>

NICE Endorsed resource – UK Sepsis Trust: screening and action tools

The UK Sepsis Trust has produced screening and action tools that accurately reflect the recommendations in the NICE guideline on sepsis. They also support statements 1, 2, 3 and 4 in the NICE quality standard on sepsis. The UK Sepsis trust decision tools can be found at: <https://sepsistrust.org/professional-resources/clinical/> and copies are available later within the resource pack.

What is sepsis?

Sepsis (also known as blood poisoning) is the immune system's overreaction to an infection or injury. Normally our immune system fights infection – but sometimes, for reasons we don't yet understand, it attacks our body's own organs and tissues. If not treated immediately, sepsis can result in organ failure and death.

Sepsis can be triggered by any infection, but most commonly it occurs in response to bacterial infections of the lungs, urinary tract, abdominal organs or skin and soft tissues.

Caught early, outcomes are excellent. Left unchecked, the patient is likely to spiral to multi-organ failure, septic shock and death. It's estimated that, every year, sepsis costs the NHS £2 billion and claims the lives of at least 52,000 people. (Sepsis Trust)

Signs and Symptoms

Sepsis can initially look like flu, gastroenteritis or a chest infection. There is no one sign, and symptoms present differently between adults and children.

How to spot sepsis in adults

Seek medical help urgently if you (or another adult) develop any of these signs:

- Slurred speech or confusion
- Extreme shivering or muscle pain
- Passing no urine (in a day)
- Severe breathlessness
- It feels like you're going to die
- Skin mottled or discoloured

How to spot sepsis in children

If your child is unwell with either a fever or very low temperature (or has had a fever in the last 24 hours), call 999 and just ask: could it be sepsis?

A child may have sepsis if he or she:

1. Is breathing very fast
2. Has a 'fit' or convulsion
3. Looks mottled, bluish, or pale
4. Has a rash that does not fade when you press it
5. Is very lethargic or difficult to wake
6. Feels abnormally cold to touch

A child under 5 may have sepsis if he or she:

1. Is not feeding
2. Is vomiting repeatedly
3. Has not passed urine for 12 hours

Reception staff

Why is Sepsis important?

Sepsis is not as rare as is often assumed and accounts for over 40,000 deaths in the UK annually.

Sepsis is as important as heart attacks and strokes as we need to identify and treat it quickly. The sooner treatment starts the better the outcome for the patient. If someone is ill with sepsis the speed of response is time critical.

Escalating concern in your practice

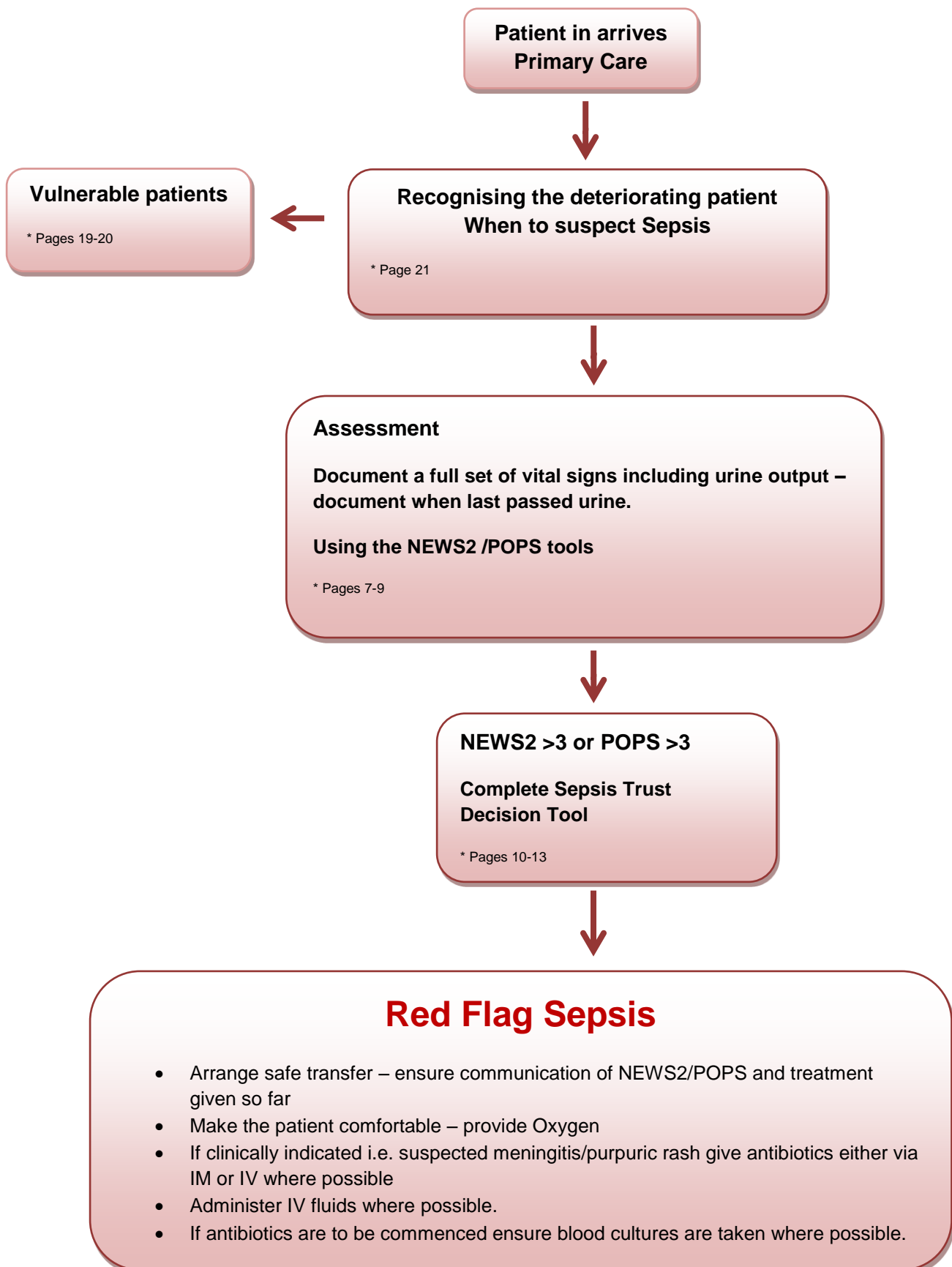
Receptionists are not expected to be clinicians, but your regular contact with unwell people and your training should help you recognise when something does not appear to be right.

- Some symptoms such as chest pain or FAST need ambulance assessment, but others simply need to be seen promptly or to have their urgency assessed by a clinician.
- This will vary from service to service, but you will need to know how this is done where you work. Your manager should be able to help you with this.

Who would you escalate to in your organisation?

There are ELearning tools available see education resources on page 18.

Sepsis Pathway for Primary Care



National Early Warning Score (NEWS) 2

NEWS2 is the latest version of the National Early Warning Score (NEWS), first produced in 2012 and updated in December 2017, which advocates a system to standardise the assessment and response to acute illness. To support the safe adoption of NEWS2, NHS Improvement has produced a resource pack. This can be found at <https://www.rcplondon.ac.uk/projects/outputs/national-early-warning-score-news-2>

The NEWS scoring system

Physiological parameter	Score						
	3	2	1	0	1	2	3
Respiration rate (per minute)	≤8		9 - 11	12 - 20		21 - 24	≥25
SpO ₂ Scale 1 (%)	≤91	92 - 93	94 - 95	≥96			
SpO ₂ Scale 2 (%)	≤83	84 - 85	86 - 87	88 – 92 ≥93 on air	93 – 94 on oxygen	95 – 96 on oxygen	≥97 on oxygen
Air or oxygen?		Oxygen		Air			
Systolic blood pressure (mmHg)	≤90	91 - 100	101 - 110	111 - 219			≥220
Pulse (per minute)	≤40		41 - 50	51 - 90	91 - 110	111 - 130	≥131
Consciousness				Alert			CVPU
Temperature (°C)	≤35.0		35.1 – 36.0	36.1 – 38.0	38.1 – 39.0	≥39.1	

How NEWS 2 works:

The NEWS 2 is based on a simple aggregate scoring system in which a score is allocated to physiological measurements, already recorded in routine practice, when patients present to, or are being monitored in hospital. Six simple physiological parameters form the basis of the scoring system:

1. Respiration rate
2. Oxygen saturation
3. Systolic blood pressure
4. Pulse rate
5. Level of consciousness or new confusion*
6. Temperature.

*The patient has new-onset confusion, disorientation and/or agitation, where previously their mental state was normal – this may be subtle. The patient may respond to questions coherently, but there is some confusion, disorientation and/or agitation. This would score 3 or 4 on the GCS (rather than the normal 5 for verbal response), and scores 3 on the NEWS2 system.

A score is allocated to each parameter as they are measured, with the magnitude of the score reflecting how extremely the parameter varies from the norm. The score is then aggregated and uplifted by 2 points for people requiring supplemental oxygen to maintain their recommended oxygen saturation.

This is a pragmatic approach, with a key emphasis on system-wide standardisation and the use of physiological parameters that are already routinely measured in NHS hospitals and in prehospital care, recorded on a standardised clinical chart – the NEWS2 chart.

NEWS2 education and training resources

There is a dedicated online training resource aimed at professionals using NEWS2.

RCP recommends this training to all staff working with NEWS2. The website provides training on how to complete the forms and effectively operate the NEWS2 system.

<https://news.ocbmedia.com/>

NEWS2 is fully embedded within EMIS. Systm1 is currently awaiting a refresh and the NEWS 2 calculator needs to be accessed externally.

Paediatric Observation Priority Score (POPS)

The Paediatric Observation Priority Score (POPS) is a checklist which quickly scores (between 0-16) acutely ill children on a combination of physiological, behavioural and risk identifiers using easy to collect data. This enables staff (even if inexperienced) to assess, prioritise and treat acutely ill children, and manage risk in busy clinical areas.

Paediatric Observation Priority Score (POPS) Chart

This chart is not a substitute for good clinical judgement and any concerns about the condition of a child should be brought to the attention of a senior nurse or doctor

Age	Score	2	1	0	1	2	Total Score	Priority
Any	Sats	<90%	90-94%	>95%	90-94%	<90%	0-1	
Any	Breathing	Stridor	Audible grunt or wheeze	No distress	Mild or Moderate Recession	Severe Recession		
Any	AVPU	Pain	Voice	Alert	Voice	Pain		
Any	Gut Feeling	High level concern	Low level concern	Well	Low level concern	Child looks unwell		
Any	Other	Oncology Patient	Significant PMH*		Significant PMH*	Congenital heart disease		
0-1	Pulse	<90	90 - 109	110 - 160	161 - 180	180+	8+	Immediate review
	RR	<25	25 - 29	30 - 40	41 - 50	50+		
	Temp	<35°	35 - 35.9°	36 - 37.5°	37.6 - 39°	39°+		
1-2	Pulse	<90	90 - 99	100 - 150	151 - 170	170+		
	RR	<20	20 - 24	25 - 35	36 - 50	50+		
	Temp	<35°	35 - 35.9°	36 - 37.9°	38.0 - 40°	40°+		
2-4	Pulse	<80	80 - 94	95 - 140	141 - 160	160+	Any child scoring above 8 should be considered for transfer to resus	
	RR	<20	20 - 24	25 - 30	31 - 40	40+		
	Temp	<35°	35 - 35.9°	36 - 37.9°	38.0 - 40°	40°+		
5-12	Pulse	<70	70 - 79	80 - 110	111 - 150	150+		
	RR	<15	15 - 19	20 - 25	26 - 40	40+		
	Temp	<35°	35 - 35.9°	36 - 37.9°	38.0 - 40°	40°+		
13-16	Pulse	<50	50 - 59	60 - 100	101 - 110	110+	*Significant PMH includes:	
	RR	<12	12 - 14	15 - 20	21 - 25	25+		
	Temp	<35°	35 - 35.9°	36 - 37.9°	38.0 - 40°	40°+		
	Pulse	<50	50 - 59	60 - 100	101 - 110	110+		
	RR	<12	12 - 14	15 - 20	21 - 25	25+		
	Temp	<35°	35 - 35.9°	36 - 37.9°	38.0 - 40°	40°+		

POPS is copyright (creative commons attribution non-commercial sharealike 4.0) Dr Damian Roland and Dr Ffion Davies 2010
This is version 1.3 August 2016

Assessment

If the patient has a NEWS2 >3 proceed to the Sepsis Trust Decision Tools

If the patient has a POPS >3 proceed to the Sepsis Trust Decision Tools

Sepsis Trust Decision Tools

Sepsis Trust Decision Support tool for children under 5 years

SEPSIS SCREENING TOOL GENERAL PRACTICE
AGE 0-5

01 START THIS CHART IF THE CHILD LOOKS UNWELL OR HAS ABNORMAL PHYSIOLOGY

RISK FACTORS FOR SEPSIS INCLUDE:

☐ Impaired immunity (e.g. diabetes, steroids, chemotherapy)
☐ Recent trauma / surgery / invasive procedure

☐ Indwelling lines / IVDU / broken skin

02 COULD THIS BE DUE TO AN INFECTION?

LIKELY SOURCE:

☐ Respiratory
☐ Brain

☐ Urine
☐ Surgical

☐ Skin / joint / wound
☐ Other

☐ Indwelling device

SEPSIS UNLIKELY, CONSIDER OTHER DIAGNOSIS

03 ANY RED FLAG PRESENT?

☐ Doesn't wake when roused / won't stay awake
☐ Looks very unwell to healthcare professional
☐ Weak, high-pitched or continuous cry
☐ Severe tachycardia (see chart)
☐ Severe tachypnoea (see chart)
☐ Bradycardia (<60 bpm)
☐ Non-blanching rash / mottled / ashen / cyanotic
☐ Temperature <36°C
☐ If under 3 months, temperature 38°C+

RED FLAG SEPSIS

START GP BUNDLE

SEPSIS UNLIKELY, CONSIDER OTHER DIAGNOSIS

04 ANY AMBER FLAG PRESENT?

IF IMMUNITY IMPAIRED TREAT AS RED FLAG SEPSIS

☐ Not responding normally / no smile
☐ Reduced activity / very sleepy
☐ Moderate tachypnoea (see chart)
☐ Moderate tachycardia (see chart)
☐ SpO₂ < 92% or increased O₂ requirement
☐ Nasal flaring
☐ Capillary refill time ≥ 3 seconds
☐ Reduced urine output
☐ Leg pain or cold extremities

SEPSIS LIKELY

- TRANSFER TO DESIGNATED DESTINATION

- COMMUNICATE LIKELIHOOD OF SEPSIS AT HANDOVER


NO AMBER FLAGS : ROUTINE CARE AND GIVE SAFETY-NETTING ADVICE:

GP RED FLAG BUNDLE:

THIS IS TIME-CRITICAL – IMMEDIATE ACTION REQUIRED: DIAL 999 AND ARRANGE BLUE LIGHT TRANSFER

COMMUNICATION: Ensure communication of 'Red Flag Sepsis' to crew. Advise crew to pre-alert as 'Red Flag Sepsis'. Where possible a written handover is recommended including observations and antibiotic allergies.

Age (years)	Tachypnoea (breaths per minute)		Tachycardia (beats per minute)	
	Severe	Moderate	Severe	Moderate
>1	≥40	50-59	≥140	150-159
1-2	≥50	40-49	≥150	140-149
3-4	≥40	35-39	≥140	130-139



THE UK SEPSIS TRUST

UKST 2019 3.1 PAGE 1 OF 1
UKST, REGISTERED CHARITY 1159843

Sepsis Trust Decision Support tool for children aged 5-11 years

SEPSIS SCREENING TOOL GENERAL PRACTICE
AGE 5-11

01 START THIS CHART IF THE CHILD LOOKS UNWELL OR HAS ABNORMAL PHYSIOLOGY

RISK FACTORS FOR SEPSIS INCLUDE:

☐ Impaired immunity (e.g. diabetes, steroids, chemotherapy)
☐ Recent trauma / surgery / invasive procedure

☐ Indwelling lines / broken skin

02 COULD THIS BE DUE TO AN INFECTION?

LIKELY SOURCE:

☐ Respiratory
☐ Brain

☐ Urine
☐ Surgical

☐ Skin / joint / wound
☐ Other

☐ Indwelling device

SEPSIS UNLIKELY, CONSIDER OTHER DIAGNOSIS

03 ANY RED FLAG PRESENT?

☐ Objective evidence of new or altered mental state
☐ Doesn't wake when roused/ won't stay awake
☐ Looks very unwell to healthcare professional
☐ Severe tachycardia (see chart)
☐ Severe tachypnoea (see chart)
☐ Bradycardia (<60 bpm)
☐ SpO₂ < 90% on air
☐ Non-blanching rash / mottled / ashen / cyanotic

YES

RED FLAG SEPSIS

START GP BUNDLE

04 ANY AMBER FLAG PRESENT?

IF IMMUNITY IMPAIRED TREAT AS RED FLAG SEPSIS

☐ Behaving abnormally / not wanting to play
☐ Parental concern
☐ Moderate tachypnoea (see chart)
☐ Moderate tachycardia (see chart)
☐ SpO₂ < 92% on air
☐ Capillary refill time ≥ 3 seconds
☐ Reduced urine output
☐ Temperature <36°C
☐ Leg pain

NO

USE CLINICAL JUDGEMENT TO DETERMINE WHETHER PATIENT CAN BE MANAGED IN COMMUNITY SETTING. IF TREATING IN THE COMMUNITY CONSIDER:

YES

- PLANNED SECOND ASSESSMENT +/- BLOODS

- SPECIFIC SAFETY NETTING ADVICE

NO AMBER FLAGS : ROUTINE CARE AND GIVE SAFETY-NETTING ADVICE:

GP RED FLAG BUNDLE:

THIS IS TIME-CRITICAL - IMMEDIATE ACTION REQUIRED: DIAL 999 AND ARRANGE BLUE LIGHT TRANSFER

COMMUNICATION: Ensure communication of 'Red Flag Sepsis' to crew. Advise crew to pre-alert as 'Red Flag Sepsis'. Where possible a written handover is recommended including observations and antibiotic allergies.

Age (years)	Tachypnoea (breaths per minute)		Tachycardia (beats per minute)	
	Severe	Moderate	Severe	Moderate
5	≥29	24-28	≥130	120-129
6-7	≥27	24-26	≥120	110-119
8-11	≥25	22-24	≥115	105-115

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11

Sepsis Trust Decision Support tool for age 12+

SEPSIS SCREENING TOOL GENERAL PRACTICE

AGE 12+

01 START THIS CHART IF THE PATIENT LOOKS UNWELL OR HAS ABNORMAL PHYSIOLOGY

RISK FACTORS FOR SEPSIS INCLUDE:

- ☐ Age > 75
- ☐ Impaired immunity (e.g. diabetes, steroids, chemotherapy)
- ☐ Recent trauma / surgery / invasive procedure
- ☐ Indwelling lines / IVDU / broken skin

02 COULD THIS BE DUE TO AN INFECTION?

LIKELY SOURCE:

- ☐ Respiratory
- ☐ Brain
- ☐ Urine
- ☐ Surgical
- ☐ Skin / joint / wound
- ☐ Other
- ☐ Indwelling device

SEPSIS
UNLIKELY,
CONSIDER
OTHER
DIAGNOSIS

03 ANY RED FLAG PRESENT?

- ☐ Objective evidence of new or altered mental state
- ☐ Systolic BP \leq 90 mmHg (or drop of >40 from normal)
- ☐ Heart rate \geq 130 per minute
- ☐ Respiratory rate \geq 25 per minute
- ☐ Needs O₂ to keep SpO₂ \geq 92%
- ☐ Non-blanching rash / mottled / ashen / cyanotic
- ☐ Recent chemotherapy
- ☐ Not passed urine in 18 hours (<0.5 ml/kg/hr if catheterised)

**RED FLAG
SEPSIS
START GP BUNDLE**

04 ANY AMBER FLAG PRESENT?

IF UNDER 17 & IMMUNITY IMPAIRED TREAT AS RED FLAG SEPSIS

- ☐ Relatives concerned about mental status
- ☐ Acute deterioration in functional ability
- ☐ Immunosuppressed
- ☐ Trauma / surgery / procedure in last 8 weeks
- ☐ Respiratory rate 21-24
- ☐ Systolic BP 91-100 mmHg
- ☐ Heart rate 91-130 or new dysrhythmia
- ☐ Temperature $<36^{\circ}\text{C}$
- ☐ Clinical signs of wound infection

USE CLINICAL JUDGEMENT TO DETERMINE WHETHER PATIENT CAN BE MANAGED IN COMMUNITY SETTING. IF TREATING IN THE COMMUNITY CONSIDER:

- PLANNED SECOND ASSESSMENT +/- BLOODS
- SPECIFIC SAFETY NETTING ADVICE

NO AMBER FLAGS : ROUTINE CARE AND GIVE SAFETY-NETTING ADVICE:

CALL 111 IF CONDITION CHANGES OR DETERIORATES.
SIGNPOST TO AVAILABLE RESOURCES AS APPROPRIATE

CALL
999 IF
ANY
OF:

Slurred speech or confusion
Extreme shivering or muscle pain
Passing no urine (in a day)
Severe breathlessness
'I feel I might die'
Skin mottled, ashen, blue or very pale

GP RED FLAG BUNDLE:


THIS IS TIME-CRITICAL - IMMEDIATE ACTION REQUIRED: **DIAL 999**
AND ARRANGE BLUE LIGHT TRANSFER

COMMUNICATION: Ensure communication of 'Red Flag Sepsis' to crew. Advise crew to pre-alert as 'Red Flag Sepsis'. Where possible a written handover is recommended including observations and antibiotic allergies.



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Sepsis Trust Decision Support tool for pregnancy or 6 weeks post-pregnancy

SEPSIS SCREENING TOOL GENERAL PRACTICE		PREGNANT OR UP TO 6 WEEKS POST-PREGNANCY
01 START THIS CHART IF THE PATIENT LOOKS UNWELL RISK FACTORS FOR SEPSIS INCLUDE: <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Recent trauma / surgery / invasive procedure <input type="checkbox"/> Impaired immunity (e.g. diabetes, steroids, chemotherapy) </div> <div> <input type="checkbox"/> Indwelling lines / IVDU / broken skin </div> </div>		
02 COULD THIS BE DUE TO AN INFECTION? LIKELY SOURCE: <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Respiratory <input type="checkbox"/> Breast abscess </div> <div> <input type="checkbox"/> Urine <input type="checkbox"/> Abdominal pain / distension </div> <div> <input type="checkbox"/> Infected caesarean / perineal wound <input type="checkbox"/> Chorioamnionitis / endometritis </div> </div>		SEPSIS UNLIKELY, CONSIDER OTHER DIAGNOSIS
03 ANY RED FLAG PRESENT? <input type="checkbox"/> Objective evidence of new or altered mental state <input type="checkbox"/> Systolic BP \leq 90 mmHg (or drop of >40 from normal) <input type="checkbox"/> Heart rate \geq 130 per minute <input type="checkbox"/> Respiratory rate \geq 25 per minute <input type="checkbox"/> Needs O ₂ to keep SpO ₂ \geq 92% <input type="checkbox"/> Non-blanching rash / mottled / ashen / cyanotic <input type="checkbox"/> Not passed urine in 18 hours (<0.5 ml/kg/hr if catheterised)		RED FLAG SEPSIS START GP BUNDLE
04 ANY AMBER FLAG PRESENT? IF IMMUNITY IMPAIRED TREAT AS RED FLAG SEPSIS <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Behavioural / mental status change <input type="checkbox"/> Acute deterioration in functional ability <input type="checkbox"/> Respiratory rate 21-24 <input type="checkbox"/> Heart rate 100-129 or new dysrhythmia <input type="checkbox"/> Systolic BP 91-100 mmHg <input type="checkbox"/> Has had invasive procedure in last 6 weeks (e.g. CS, forceps delivery, ERPC, cerclage, CVS, miscarriage, termination) <input type="checkbox"/> Temperature $< 36^{\circ}\text{C}$ <input type="checkbox"/> Has diabetes or gestational diabetes <input type="checkbox"/> Close contact with GAS <input type="checkbox"/> Prolonged rupture of membranes <input type="checkbox"/> Bleeding / wound infection <input type="checkbox"/> Offensive vaginal discharge </div> <div> USE CLINICAL JUDGEMENT TO DETERMINE WHETHER PATIENT CAN BE MANAGED IN COMMUNITY SETTING. IF TREATING IN THE COMMUNITY CONSIDER: - PLANNED SECOND ASSESSMENT +/- BLOODS - SPECIFIC SAFETY NETTING ADVICE </div> </div>		
NO AMBER FLAGS : ROUTINE CARE AND GIVE SAFETY-NETTING ADVICE CONSIDER OBSTETRIC ASSESSMENT		
GP RED FLAG BUNDLE: THIS IS TIME-CRITICAL - IMMEDIATE ACTION REQUIRED: DIAL 999 AND ARRANGE BLUE LIGHT TRANSFER COMMUNICATION: Ensure communication of 'Red Flag Sepsis' to crew. Advise crew to pre-alert as 'Red Flag Sepsis'. Where possible a written handover is recommended including observations and antibiotic allergies.		 THE UK SEPSIS TRUST <small>UKST 2019 3.1 PAGE 1 OF 1 UKST, REGISTERED CHARITY 1158843</small>

If Red Flag Sepsis is identified:

- Immediate action is required, Dial 999 and arrange blue light transfer.
- Ensure communication of 'RED FLAG SEPSIS' and the NEWS2 or POPS score.
- Make the patient comfortable – provide Oxygen
- If clinically indicated i.e. suspected meningitis/purpuric rash give antibiotics either via IM or IV, plus IV fluids where possible
- If antibiotics are to be commenced ensure blood cultures are taken where possible
- Where possible a written handover is recommended including observations and antibiotic allergies.

If Amber Flag Sepsis is identified, where Sepsis is likely:

- Arrange safe transfer of the patient to via appropriate method.
- Ensure communication of 'Sepsis Likely' along with the NEWS2 or POPs Score.
- Make the patient comfortable
- Where possible a written handover is recommended including observations and antibiotic allergies.

EMAS Response

RED Flag Sepsis with EMAS is cat 2 calls up to 40 mins response time. The standard applies to the category of the call regardless of the location. The performance standard is mean response time of 18 minutes with a 90th centile of 40 minutes (i.e. respond to 90% of category two calls in 40 minutes)

Safety Netting

For patients where safety netting may be required following an appointment or visit and has a had a prescription for an infection, please give the patient a copy of the “either the Adult Sepsis Safety Net or the Children’s Sepsis Safety net which is available from - <https://patient.info/infections/sepsis-septicaemia-leaflet/adult-sepsis-safety-net> and <https://patient.info/infections/sepsis-septicaemia-leaflet/child-sepsis-safety-net> (below)

Adult Sepsis Safety Net

If your condition has changed since you last saw a doctor, this leaflet is provided to help you decide if you need further healthcare or assessment.

This leaflet has been produced in collaboration with The UK Sepsis Trust. This is a UK charity that is committed to raising awareness of sepsis and improving the care patients with sepsis receive.

Sepsis is a life-threatening condition and needs emergency treatment, usually in hospital. The symptoms of sepsis may be vague and not specific so seek medical advice immediately if you have any concerns.

You should always seek help if you, or anyone you’re with, develop:

- Slurred speech or confusion
- Extreme shivering or muscle pain
- Passing no urine (in a day)
- Severe breathlessness
- It feels like you’re going to die
- Skin mottled or discoloured

Other symptoms which could suggest sepsis include:

- VERY high temperature (fever) or low body temperature (feels very cold)
- Feeling very sleepy or about to lose consciousness
- Severe tummy (abdominal) pain
- Feeling very dizzy or faint or having a fit (seizure)
- A rash which does not fade with pressure
- Not eating any food or drinking any fluid
- Being sick (vomiting) repeatedly

If you do have sepsis you may also have other symptoms of infection such as a flu-like illness (cough, fever, muscle aches and joint pains) or diarrhoea and vomiting.

Early treatment saves lives. Call 999 if you are very concerned. Call your GP immediately if you’re concerned, but don’t think you need to go straight to hospital. If there is any delay in talking to a doctor then call 999.

Children's Sepsis Safety Net

If your child's condition has changed since they last saw a doctor, this leaflet will help you decide if they need further healthcare or assessment.

This leaflet has been produced in collaboration with The UK Sepsis Trust. This is a UK charity that is committed to raising awareness of sepsis and improving the care patients with sepsis receive.

Sepsis is a life-threatening condition and needs emergency treatment, usually in hospital. The symptoms of sepsis may be vague and not specific. If your child is unwell with either a fever or very low temperature (or has had a fever in the last 24 hours), just ask: Could it be sepsis?

If your child has any of the following, seek medical advice immediately (call 999 if you can't get immediate access to a doctor) and ask: Could it be sepsis?

- Is breathing very fast
- Has a 'fit' or convulsion
- Has clammy, cold skin and looks blue, pale or patchy (mottled)
- Has a rash that does not fade when you press it
- Is very lethargic or difficult to wake
- Feels abnormally cold to touch

Other symptoms to look out for include:

- Severe shivering
- Severe muscle pain or tummy (abdominal) pain
- Being confused or disorientated (not sure where they are)
- Slurred speech
- Feeling very dizzy or faint

Any child under 5:

- Not feeding
- Vomiting repeatedly
- Hasn't had a wee or wet nappy for 12 hours

Might have sepsis so if you're worried they're deteriorating call 111 or see your GP.

If your child does have sepsis they may also have other symptoms of infection such as a flu-like illness (cough, fever, muscle aches and joint pains) or diarrhoea and vomiting.

Early treatment saves lives. Call 999 if you are very concerned. Call your GP immediately if you're concerned, but don't think your child needs to go straight to hospital. If there is any delay in talking to a doctor then call 999.

Post Sepsis Syndrome

Some sepsis survivors experience a variety of physical, psychological and emotional problems while recovering. This is known as Post Sepsis Syndrome (PSS) and usually lasts between 6 and 18 months, sometimes longer.

Approximately 50% of sepsis survivors suffer from Post Sepsis Syndrome and patients who are diagnosed with sepsis can experience long-term effects, such as:

- Anxiety / fear of sepsis recurring
- Depression
- Flashbacks
- Nightmares
- Insomnia (due to stress or anxiety)
- PTSD (Post Traumatic Stress Disorder)
- Poor concentration
- Short term memory loss
- Mood swings

<https://sepsistrust.org/get-support/resources/>

Educational Resources

Reception and Administration Staff

Reception staff: commonly the first point of contact for people with acute health needs. Receptionists are not expected to make clinical decisions but need to be aware of which symptoms or presentations might suggest the patient is acutely unwell and requires specific actions. The programme has been developed to support receptionists in recognising specific symptoms that may indicate a deteriorating patient, including sepsis, and how they would consider escalating this to a clinician within the service/practice in which they operate.

<https://www.e-lfh.org.uk/programmes/sepsis/>

Sepsis Trust resources

<https://sepsistrust.org/professional-resources/education-resources/>

<https://uksepsistrust.premierit.host/login> - registration is required

RCGP – Toolkit

This section consists of two structured, case-based discussions highlighting the challenges, strategies and limited evidence for improving sepsis care within primary care.

It should take about 1 hour to review and discuss the cases.

The package is intended to complement the E-learning for Healthcare Sepsis suite of learning resources.

<https://www.e-lfh.org.uk/programmes/sepsis/>

<https://www.rcgp.org.uk/clinical-and-research/resources/toolkits/sepsis-toolkit.aspx>

<https://news.ocbmedia.com/> - News2 for Clinical Staff

Learning Disabilities

A number of freely available resources have been developed for the system that includes:

- A sepsis [song](#) to raise awareness and improve vigilance to the signs of sepsis amongst people with a learning disability
- A training [film](#) that supports health and care professionals, and carers, to spot the softer signs of deterioration in people with a learning disability
- A training [film](#) aimed at those who care for people with a learning disability who may not be able to communicate or verbalise how they are feeling
- A [film](#) aimed at people with a learning disability who may not be able to communicate or verbalise how they are feeling

People who are most vulnerable to sepsis

Take into account that people in the groups below are at higher risk of developing [sepsis](#):

- People who have previously had Sepsis
- The very young (under 1 year) and older people (over 75 years) or people who are very frail

People who have impaired immune systems because of illness or drugs, including:

- People being treated for cancer with chemotherapy (suspect neutropenic sepsis in patients having anticancer treatment who become unwell and treat people with neutropenic sepsis in line with NICE's recommendations on [neutropenic sepsis](#))
- People who have impaired immune function (for example, people with diabetes, people who have had a splenectomy, or people with sickle cell disease)
- People taking long-term steroids
- People receiving taking immunosuppressant drugs to treat non-malignant disorders such as rheumatoid arthritis
- People who have had surgery, or other invasive procedures, in the last 6 weeks
- People with any breach of skin integrity (for example, cuts, burns, blisters or skin infections)
- People who misuse drugs intravenously
- People with indwelling lines or catheters

Ensure people who are at increased risk of sepsis (for example after surgery) are told before discharge about symptoms that should prompt them to get medical attention and how to get it.

Women of childbearing age

Take into account that women who are pregnant, have given birth or had a termination of pregnancy or miscarriage in the last 6 weeks, are in a high risk group for sepsis. In particular, women who:

- Have impaired immune system because of illness or drugs (see [face to face assessment](#))
- Have gestational diabetes or diabetes or other comorbidities
- Needed invasive procedures (for example, caesarean section, forceps delivery, removal of retained products of conception)
- Had prolonged rupture of membranes
- Have or have been in close contact with people with group A streptococcal infection, for example, scarlet fever
- Have continued vaginal bleeding or an offensive vaginal discharge

Neonates

Take into account the following risk factors for early-onset neonatal infection:

- Invasive group B streptococcal infection in a previous baby
- Maternal group B streptococcal colonisation, bacteriuria or infection in the current pregnancy
- Pre-labour rupture of membranes
- Preterm birth following spontaneous labour (before 37 weeks' gestation)
- Suspected or confirmed rupture of membranes for more than 18 hours in a preterm birth
- Intrapartum fever higher than 38°C, or confirmed or suspected chorioamnionitis
- Parenteral antibiotic treatment given to the woman for confirmed or suspected invasive bacterial infection (such as septicaemia) at any time during labour, or in the 24-hour periods before and after the birth (this does not refer to intrapartum antibiotic prophylaxis)
- Suspected or confirmed infection in another baby in the case of a multiple pregnancy

When to suspect sepsis

Think 'could this be [sepsis](#)?' if a person presents with signs or symptoms that indicate possible infection.

Take into account that people with sepsis may have non-specific, non-localised presentations, for example feeling very unwell, and may not have a high temperature.

Pay particular attention to concerns expressed by the person and their family or carers, for example changes from usual behaviour.

Assess people who might have sepsis with extra care if they cannot give a good history (for example, people with English as a second language or people with communication problems).

Assess people with any suspected infection to identify:

- Possible source of infection
- Factors that increase risk of sepsis
- Any indications of clinical concern, such as new onset abnormalities of behaviour, circulation or respiration

Identify factors that increase risk of sepsis or indications of clinical concern such as new onset abnormalities of behaviour, circulation or respiration when deciding during a remote assessment whether to offer a face-to-face-assessment and if so, on the urgency of face-to-face assessment.

In primary care can you can't normally measure urine output but it is important to document when urine was last passed as this is a sensitive indicator of organ perfusion. Respiratory rate is also a sensitive indicator of metabolic status. Both urine output and respiratory rate are the earliest indicators of deterioration.

The Sepsis Working Group

The Sepsis Working Group has produced this resource pack. The group formed in August 2018 to develop a Derbyshire-wide consistent approach to the identification and management of Sepsis from the community and into the acute setting. Its membership comprises of partners and providers listed below, with whom the pack has also been shared.

- Primary Care
- Derby and Derbyshire Clinical Commissioning Group
- University Hospitals of Derby and Burton NHS Foundation Trust
- Chesterfield Royal Hospital NHS Foundation Trust
- Derbyshire Community Health Services NHS Foundation Trust
- Derbyshire Healthcare NHS Foundation Trust
- Derbyshire Health United
- East Midlands Ambulance Service NHS Trust
- Derbyshire County Council



**University Hospitals of
Derby and Burton**
NHS Foundation Trust



Derby and Derbyshire
Clinical Commissioning Group



East Midlands Ambulance Service
NHS Trust



Derbyshire Healthcare
NHS Foundation Trust



**Chesterfield
Royal Hospital**
NHS Foundation Trust



Derbyshire Community Health Services
NHS Foundation Trust



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