

Proactively Treating and monitoring Sepsis Patients to Manage Deterioration

- **Sally Marden**
- **Lead Sepsis and
Kidney Injury
Prevention Specialist
Nurse at the Royal
United Hospital , Bath**

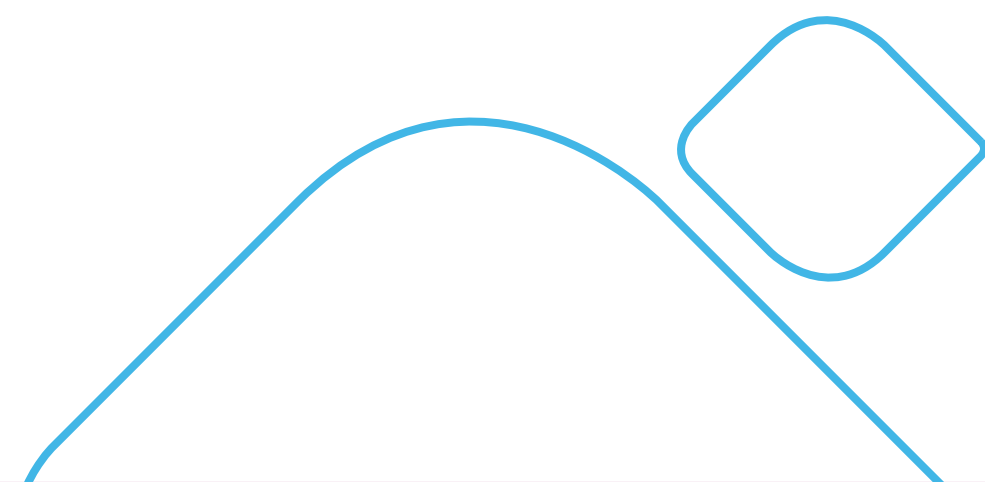
The RUH, where you matter



The Royal United Hospital, Bath



The RUH, where you matter



Introduction

Sepsis affects millions globally, and requires early treatment

The delay in treatment increases mortality significantly

- Digital tools- improve early detection
- Early antibiotics- saves lives.
- Multidisciplinary Collaboration- improved treatment effectiveness
- Post hospital care- reduces hospital burden and readmissions

Real time NEWS response

- In past – used sepsis sniffer tools- SIRS/qSOFA- to sift out sepsis alarms amongst a lot of clinical criteria
- Digital Surveillance - NEWS 2 real time trigger alerts- improves bundle compliance
- Multidisciplinary approach- to use clinical judgement in treatment/pt outcomes
- Use of structured communication(SBAR)
- Sepsis and CCOT teams provide proactive pt review and treatment in response to news increase alerts



RUH White Board



ZZZTESTMAT, JESSICA x Nurse Whiteboard v2

Recent Name Full screen Print

100%

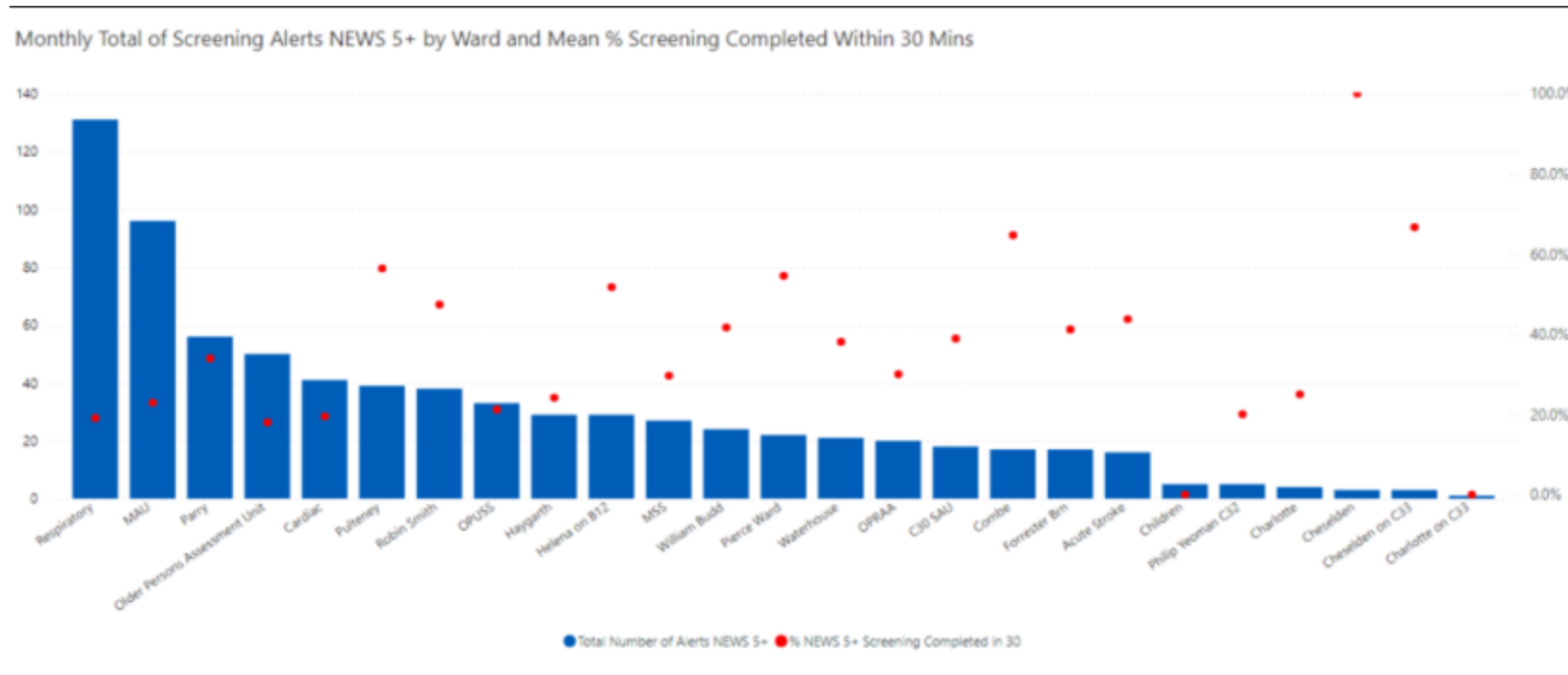
Nurse Whiteboard x +

Patient List Medical Eobs (J. Flower) List Maintenance Add Patient Establish Relationships Filter

Patient Info	Location	Sepsis	EWS Total Score	T...	D...	F...	Does patient...	F...	W...	Dementia	EWS Scale	M...
	Bay 02-Bed 03 William Budd	Needs Sepsis Screeni... 12 mins ago	7 14 mins ago	⚠ P. ⚠ S.			5. Intravenous Me... 27 h...	No 27 h...	8... k... 19 h...		NEWS Scale 1 7 hrs ago	0 39 h...
	Side Room 01-Bed 01 Respiratory	⚠ Sepsis Amber Flag 19 hrs ago	6 104 mins ago	Br... M...			7. Acute Impairm... 5 wk...	⚠ Y... 3 hr...	11... k... 3 hr...		NEWS Scale 2 104 mins ago	2 4 wk...
	Bay 05-Bed 03 Respiratory	✔ Not Sepsis 22 hrs ago	6 6 hrs ago	Pa... Di...			7. Acute Impairm... 12 d...	⚠ Y... 12 d...	58... k... 12 d...		NEWS Scale 2 16 hrs ago	1 3 wk...
	Main ward-Bed 05 CCU	✔ Not Sepsis 6 days ago	5 6 days ago	⚠ L. ⚠ B.		3 7 da...	1. NEWS >=3 UN... 6 da...	⚠ Y... 6 da...	5... k... 3 da...		NEWS Scale 1 7 days ago	0 4 da...
	Bay 05-Bed 04 Respiratory	✔ Not Sepsis 17 mins ago	5 98 mins ago	Pa... Di...		6 8 da...	7. Acute Impairm... 8 days ago	⚠ Y... 11 h...			NEWS Scale 2 9 mins ago	
	Bay 04-Bed 02 Parry	✔ Not Sepsis 4 hrs ago	5 4 hrs ago	⚠ Di... Di...		5 4 wk...	7. Acute Impairm... 3 wks ago		69 kg 6 da...		NEWS Scale 1 4 hrs ago	3 6 da...
	Bay 01-Bed 05 Parry	✔ Sepsis 23 hrs ago	5 3 hrs ago	⚠ Di... Di...		7 3 wk...	5. Intravenous Me... 3 wks ago	No 3 wk...	53... k... 9 da...		NEWS Scale 1 3 hrs ago	0 9 da...
	Main ward-Bed 06 CCU	✔ Not Sepsis 4 days ago	5 4 days ago	⚠ Di... Di...		1 4 da...	2. Critical or High... 16 mins ago	⚠ Y... 23...	58 kg 14...		NEWS Scale 1 4 days ago	0 14...
	Side Room 02-Bed 01 Respiratory	Needs Sepsis Screeni... 4 hrs ago	5 4 hrs ago	⚠ S. ⚠ S.		5 28 h...	7. Acute Impairm... 4 hrs ago				NEWS Scale 2 4 hrs ago	
	Bay 03-Bed 04 Cardiac	✔ Not Sepsis 8 hrs ago	4 4 hrs ago	: M... Ma...		4 5 wk...	5. Intravenous Me... 5 wks ago		10... k... 3 da...		NEWS Scale 2 22 hrs ago	0 6 da...
	Bay 03-Bed 03 Respiratory	Needs Sepsis Screeni... 3 hrs ago	4 112 mins ago	⚠ S. Di...		3 5 wk...	3. Oxygen Therap... 5 wks ago	⚠ Y... 5 wk...	56... k... 21 h...		NEWS Scale 2 3 hrs ago	2 5 wk...
	Bay 03-Bed 02 Parry	✔ Not Sepsis 18 hrs ago	4 4 hrs ago	⚠ M ⚠ C.			1. NEWS >=3 UN... 11 days ago	⚠ Y... 7 da...			NEWS Scale 1 4 hrs ago	
	Bay 05-Bed 02 Respiratory	✔ Not Sepsis 106 mins ago	4 109 mins ago	Pa...		6 3 wk...	2. Critical or High... 3 wks ago	No 3 wk...	92 kg 19 h...		NEWS Scale 1 8 hrs ago	2 3 wk...
	Bay 04-Bed 05 Respiratory	✔ Not Sepsis 3 hrs ago	4 33 mins ago	⚠ S. ⚠ S.		4 4 da...	1. NEWS >=3 UN... 5 days ago		66... k... 17 h...		NEWS Scale 2 4 hrs ago	2 17 h...

The RUH, where you matter

Monthly graph for screening alerts

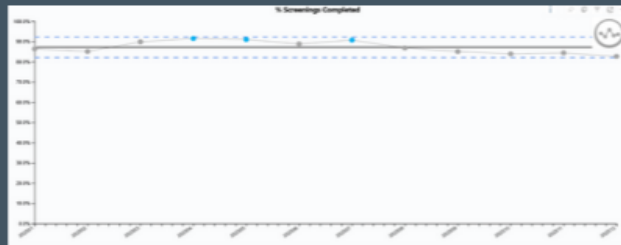


The RUH, where you matter

Deteriorating Patient Trust - December 2025

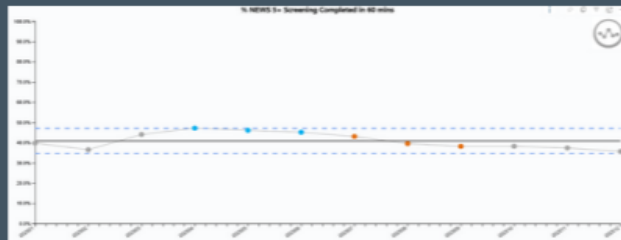
Sepsis Screening Compliance if NEWS increases ≥ 2

Last Month Performance (November)	Ongoing Mean	Sepsis Screening
83%	88%	No. Alerts 2879
		No. Screened 2380



NEWS 5+ Screening Compliance in 60 minutes

Last Month Performance (November)	Ongoing Mean	Sepsis Screening
36%	41%	No. Alerts 976
		No. Screened 348



Acute Kidney Injury

Number of Hospital Acquired AKIs



101

Fluid Balance

Compliance with fluid balance chart



89%

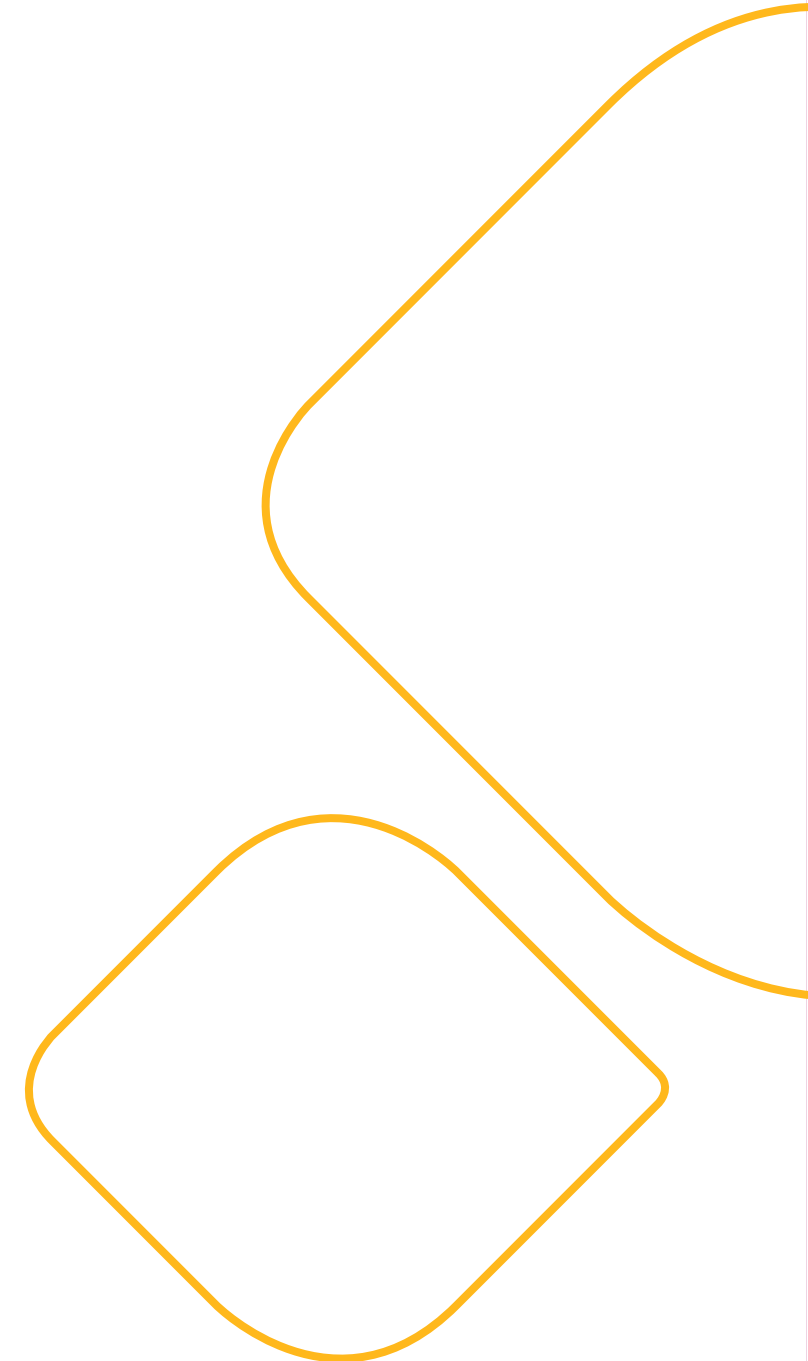
Training Compliance

Compliance with Level 2 AKI training

91.7%

Compliance with Level 2 Sepsis training

85.9%

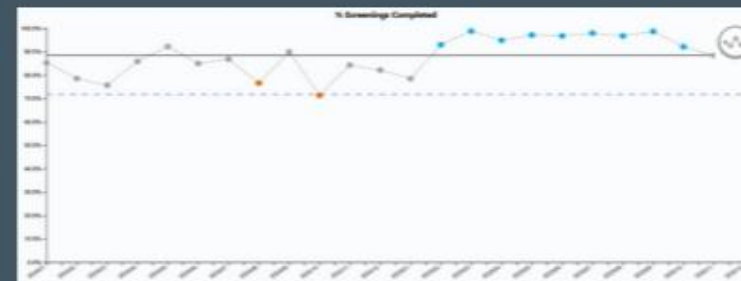


Deteriorating Patient

Robin Smith - December 2025

Sepsis Screening Compliance if NEWS increases ≥ 2

Last Month Performance (November)	Ongoing Mean	Sepsis Screening
92%	88%	No. Alerts 151
		No. Screened 139



Acute Kidney Injury

Robin Smith Hospital Acquired AKIs



5

Fluid Balance

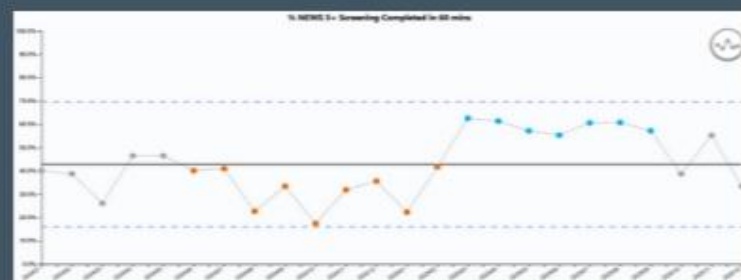
Compliance with fluid balance chart



88%

NEWS 5+ Screening Compliance in 60 minutes

Last Month Performance (November)	Ongoing Mean	Sepsis Screening
38.6%	43%	No. Alerts 44
		No. Screened 17



Training Compliance

Compliance with Level 2 AKI training

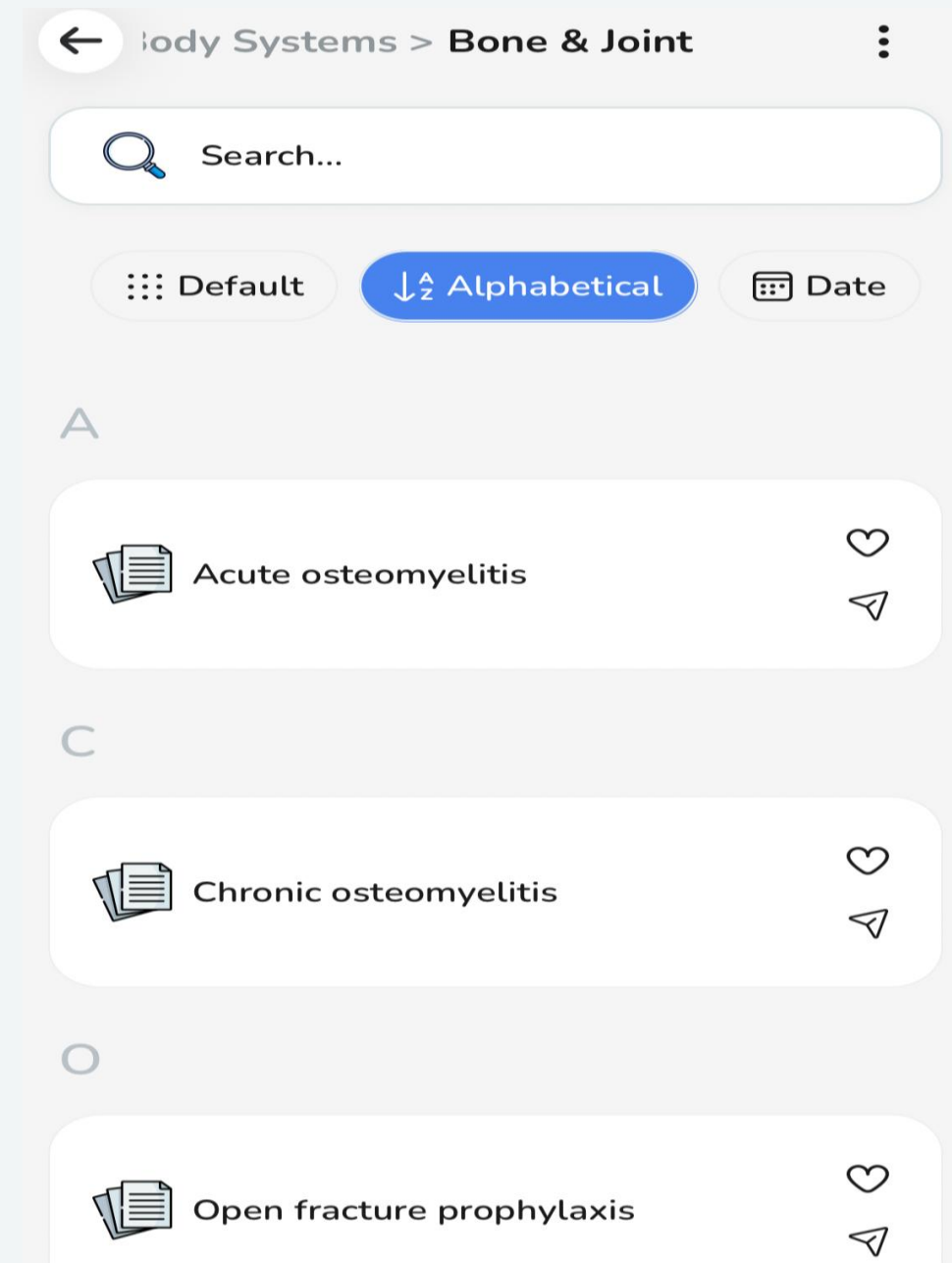
100%

Compliance with Level 2 Sepsis training

97%

Pre- prescription Antibiotics for Early treatment

- Pre –Prescription Protocols to enable faster antibiotic administration- ie Neutropenic sepsis
- Hospital Eolas Medical App- Hospital Antimicrobial Guidelines – for more detailed body system breakdown and their treatment guidelines
- Sepsis care bundles



Sepsis Give 3 Care Plan

ZZZTESTMAT, JESSICA
Allergies: Aspirin 75mg gastro-resistant table...
FLAG

Age:40 years
DOB:23/Aug/84
Phone:01225824339

Sex:Female
MRN:2083384
NHS:710-778-3890

Loc:ZZZ Demo Ward 1; Bay 1; Bed 04
Inpatient [05/Nov/2024 15:00:00 GMT <No - Discharge date>] Fin#:2005121983
CCG:NO GP PRACTICE GP:Not Known , GP - UK Resident

Requests/Meds/CarePlans

+ Add | Document Medication by History | Reconciliation | Check Interactions

Reconciliation Status
Meds History | Admission | Discharge

Orders | Document in Plan | Manage Infusions

+ Add to Phase | Comments | Start: Now | Duration: None

Component	Status	Details
<input checked="" type="checkbox"/> Sepsis Red Flag		Sepsis
Medications		
<ul style="list-style-type: none">The Care Plans below are adapted from the full antimicrobial guidelines. Links to the full guidelines can be found within each, and should be consulted in all casesAll drugs default to the intravenous route. This is in line with national sepsis guidelinesConsider contraindications and interactions. Dose adjustments may be necessary e.g. in renal impairmentConsider previous culture results. Discuss with microbiology if there is a history of multi-resistant organisms or MRSAVancomycin should be dosed as per local guidelines. The only exception is when bacterial meningitis is suspected (see Care Plan)		
<input type="checkbox"/> Aspiration Pneumonia		
<input type="checkbox"/> Bacterial Meningitis		
<input type="checkbox"/> Cellulitis		
<input type="checkbox"/> Community Acquired Pneumonia/LRTI (excluding Pre...		
<input type="checkbox"/> Community Acquired Sepsis Chest/Urine Source		
<input type="checkbox"/> Community Acquired Sepsis of Unknown Origin		
<input type="checkbox"/> Epiglottitis		
<input type="checkbox"/> Hospital Acquired Pneumonia (Severe)		
<input type="checkbox"/> Necrotising Fasciitis		
<input type="checkbox"/> Intra-abdominal Sepsis		
<input type="checkbox"/> Neutropenic Sepsis (NOT Penicillin Allergic)		
<input type="checkbox"/> Neutropenic Sepsis (Penicillin Allergic)		
<input type="checkbox"/> Prosthetic Joint Infection		
<input type="checkbox"/> Pyelonephritis (excluding Pregnancy)		
<input type="checkbox"/> Pyelonephritis in Pregnancy		
<input type="checkbox"/> Sepsis/Septic Shock in Pregnancy or Post-Partum		
<input type="checkbox"/> Septic Arthritis (Native Joint)		
<input type="checkbox"/> Tonsillitis/Quinsy		
<input type="checkbox"/> Urosepsis		
FLUIDS		
<input type="checkbox"/> Hartmanns solution IV infusion		
OXYGEN		
<input type="checkbox"/> Oxygen Prescription (Oxygen Prescription - Adult)		

The RUH, where you matter

Sepsis Prescription template for CAP

ZZZTESTMAT, JESSICA
 Allergies: Aspirin 75mg gastro-resistant table...
 FLAG

Age:40 years
 DOB:23/Aug/84
 Phone:01225824339

Sex:Female
 MRN:2083384
 NHS:710-778-3890

Loc:ZZZ Demo Ward 1; Bay 1; Bed 04
 Inpatient [05/Nov/2024 15:00:00 GMT <No - Discharge date>] Fin#:2005121983
 CCG:NO GP PRACTICE GP:Not Known , GP - UK Resident

CP-IS: No
 Weight:65 kg

Reconciliation Status
 Meds History Admission Discharge

+ Add | Document Medication by History | Reconciliation | Check Interactions

Orders | Document in Plan | Manage Infusions

Return to Sepsis 6 Adult Care Plan

Offset	Component	Status	Details
Sepsis 6 Adult Care Plan, Community Acquired Sepsis of Unknown Origin (Initiated Pending)			
Patient Care			
General			
Only appropriate if patient NOT neutropenic and meningitis NOT suspected			
Medications			
FIRST LINE			
First Line if MRSA infection NOT suspected			
<input type="checkbox"/>	Amoxicillin		1 g - intraVENOUS - injection - every EIGHT hours - Infection status Probable Infection - for: Community acquired sepsis
<input type="checkbox"/>	Gentamicin		mg - intraVENOUS - infusion - every TWENTY FOUR hours - Infection status: Probable Infection - for: Community acquired sepsis
<input type="checkbox"/>	Gentamicin Dose Calculator		
<input type="checkbox"/>	Flucloxacillin		2 g - intraVENOUS - injection - every SIX hours - Infection status: Probable Infection - for: Community acquired sepsis unknown origin
<input type="checkbox"/>	If anaerobic infection suspected, add:		
<input type="checkbox"/>	metroNIDAZOLE		500 mg - intraVENOUS - infusion - every EIGHT hours - Infection status: Probable Infection - for: Community acquired sepsis unknown origin
SECOND LINE			
Penicillin Allergy OR if MRSA infection suspected			
<input type="checkbox"/>	Teicoplanin		6 mg per kg - intraVENOUS - injection - every TWELVE hours - Infection status: Probable Infection - for: Community acquired sepsis - COURSE LENGTH: 3 dose
<input type="checkbox"/>	+2 day Teicoplanin		6 mg per kg - intraVENOUS - infusion - every TWENTY FOUR hours - Infection status: Probable Infection - for: Community acquired sepsis
<input type="checkbox"/>	Gentamicin		mg - intraVENOUS - infusion - every TWENTY FOUR hours - Infection status: Probable Infection - for: Community acquired sepsis
<input type="checkbox"/>	Gentamicin Dose Calculator		
<input type="checkbox"/>	If anaerobic infection suspected, add:		
<input type="checkbox"/>	metroNIDAZOLE		500 mg - intraVENOUS - infusion - every EIGHT hours - Infection status Probable Infection - for: Community acquired sepsis

Return to Sepsis 6 Adult Care Plan

Details

Dx Table | Orders For Cosignature | Orders For Signature

- Strategies used for Reducing LOS of sepsis patients, and what healthcare services do we have to support their recovery

- Early mobilisation and rehabilitation
- Timely IV-to oral AB switch
- Proactive discharge planning – Hospital @ Home
- Post ITU discharge clinic support
- PIL to all patients on discharge
- Refer to UKST support services

Key Messages:

1. Early recognition of pt deterioration relies on – digital tools(they support but don't replace) , clinical judgement, and collaborative practise all working together
2. Treatment MUST be followed by active monitoring, as the patients journey with sepsis is never linear



3. 2026 – is an exciting time for all trusts and care agencies

