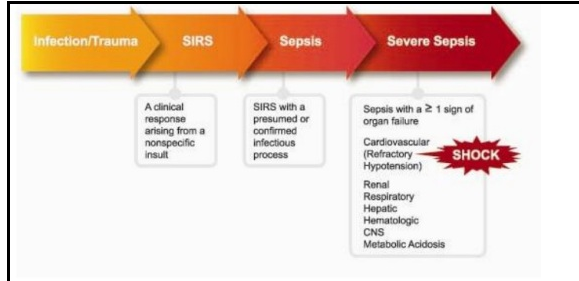


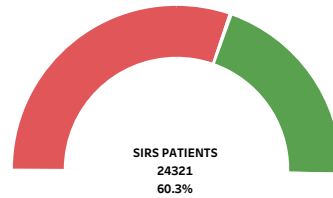
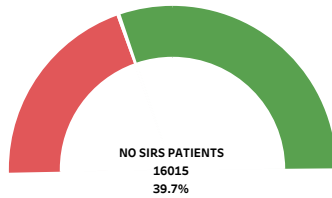
SIRS ANALYSIS

SIRS

Systemic inflammatory response syndrome (SIRS) is a life-threatening medical condition resulting from the body's overwhelming reaction to a stressor. This may include factors such as an infection, trauma, or a deteriorating health condition. It has the potential to result in reversible or irreversible organ failure and even death. SIRS requires prompt treatment in a hospital.



SIRS and NON SIRS Patient Count

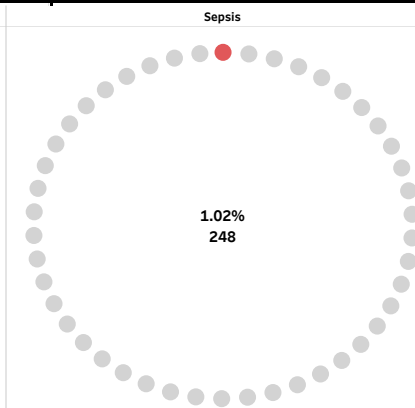
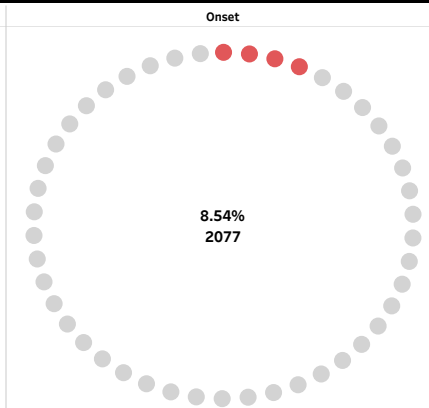
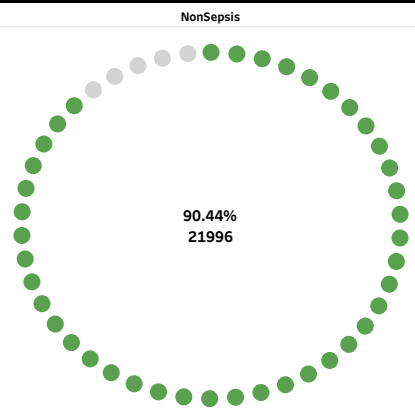


Systemic Inflammatory Response Syndrome (SIRS)

Systemic inflammatory response to a non-specific insult that includes ≥ 2 of the following symptoms:

- Temperature $> 38^{\circ}\text{C}$ or $< 36^{\circ}\text{C}$
- Heart rate > 90 beats/min
- Respiratory rate $> 20/\text{min}$, or $\text{paO}_2 < 32$ mmHg
- WBC $> 12,000/\text{mm}^3$ or $< 4,000/\text{mm}^3$, or $> 10\%$ bands

SIRS or No SIRS Patients with Sepsis Relationship

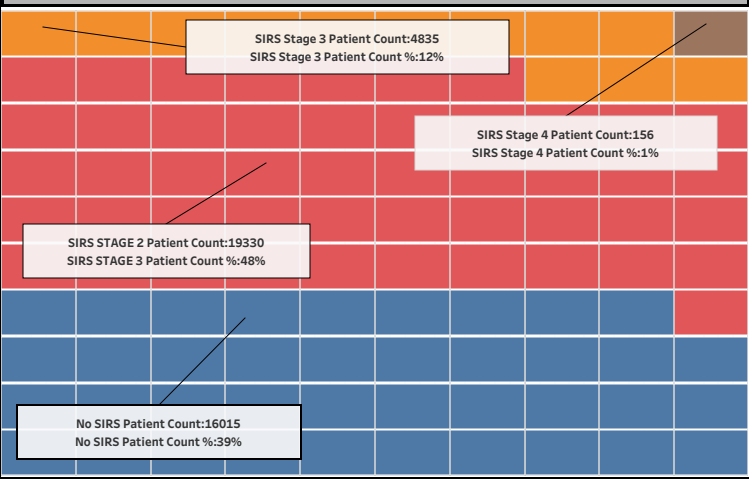


SIRS Criteria
SIRS PATIENTS

Approximately 10% of all SIRS patients are affected by sepsis, with 8.5% developing it from the onset and 1% originating from existing sepsis cases.

SIRS Stages Percentage Wise

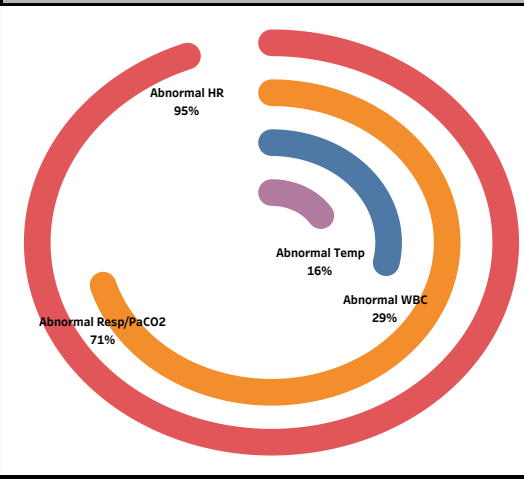
SIRS Abnormal Biomarkers



SIRS_STAGES

- NO SIRS
- SIRS STAGE 2
- SIRS STAGE 3
- SIRS STAGE 4

Nearly 48% of SIRS patients fall into the Stage 2 category, followed by 12% in Stage 3, and the remaining 1% in Stage 4.

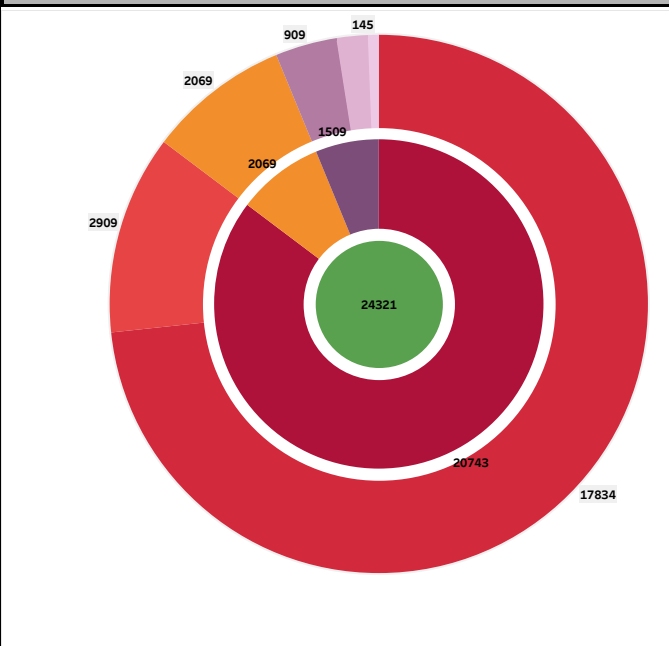


Abnormal SIRS Ranges

- Abnormal HR
- Abnormal Resp/PaCO2
- Abnormal Temp
- Abnormal WBC

Abnormal heart rate is the most common contributor to SIRS, followed by respiratory rate and Paco2 levels.

SIRS Abnormal Biomarkers and Combinations



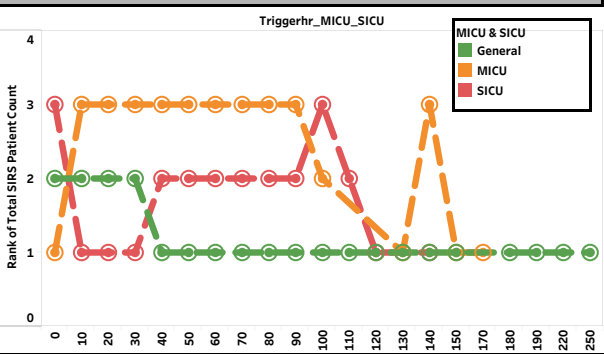
Abnormal SIRS Ranges

- Abnormal HR
- Abnormal Resp/PaCO2
- Abnormal Temp

Abnormal SIRS Ranges, Abnormal Ranges and their division

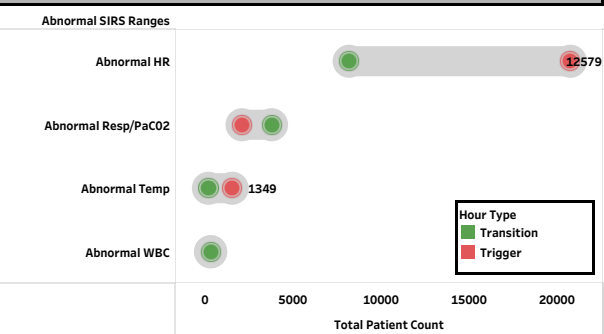
- Abnormal HR, HR and RESP/PaCO2
- Abnormal HR, HR and WBC
- Abnormal Resp/PaCO2, Resp/PaCO2 and WBC
- Abnormal Temp, Temp and HR
- Abnormal Temp, Temp and RESP/PaCO2
- Abnormal Temp, Temp and WBC

Trigger Hours Ranking - MICU Vs SICU



During the initial hours, there were more SIRS patients in the MICU, but the number of SIRS patients later increased in the SICU.

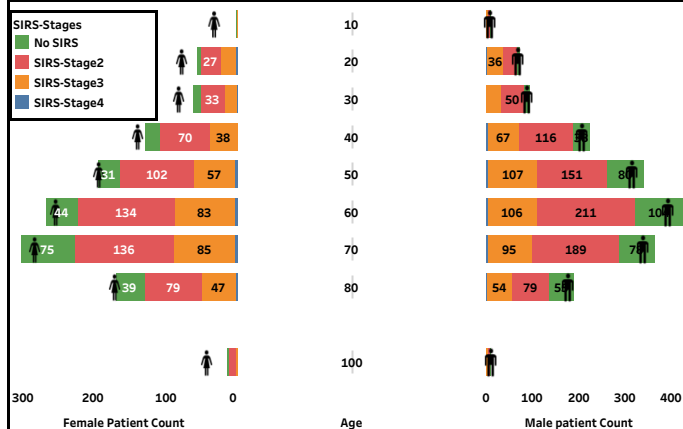
SIRS Abnormal Ranges with Hour Type



The SIRS abnormal ranges are further detailed and categorized at a deeper level in the chart above. The majority of SIRS patients exhibit abnormal heart rate, along with respiratory rate and Paco2 levels.

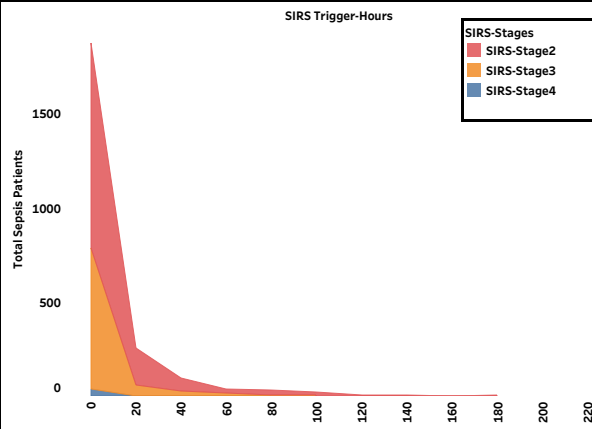
The SIRS abnormal ranges, based on trigger and transition hours, show that within the 1-hour range, the number of patients with abnormal heart rates increased by 12,000, followed by approximately 1,350 more patients with abnormal temperatures.

SIRS Stages in Sepsis Patients by Gender



Across all SIRS stages in Sepsis patients, the number of male patients exceeds that of female patients. The highest count among males is observed in the 60-70 age group, while the highest count among females is seen in the 70-80 age group.

SIRS Trigger Hours by SIRS Stages



In the sepsis category, patients in SIRS Stage 2 are more affected than those in SIRS Stage 3, with both being more affected than patients in SIRS Stage 4.

Email Notification for SIRS Trigger Hour Alert

Patient ID	Hour Type	Hour	Email Alert	Temp	HR	Resp	PaCO2	WBC
1	Transition	3			90.00	30.00	100.00	
	Trigger	4			103.00	24.50		
3	Transition	1			87.00	29.00		
	Trigger	2		37.110	93.00	40.00		
4	Transition	3			107.50	17.00		
	Trigger	4			113.00	26.00		
18	Transition	1			104.00	16.00		
	Trigger	2		38.560	102.00	24.00		
30	Transition	0			91.00	12.00		
	Trigger	1		36.560	91.00	14.00	47.00	14.10
97	Transition	9					34.00	
	Trigger	10		34.800	67.00	14.00	29.00	7.90

SIRS Trigger Hour Alert !!!

Message Insert Format text Draw Options

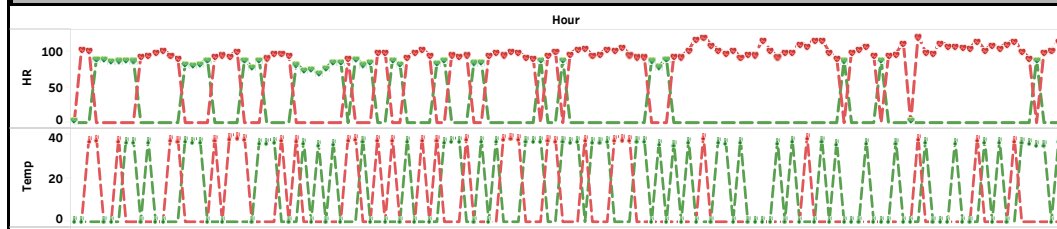
Send From: kriththi@gmail.com

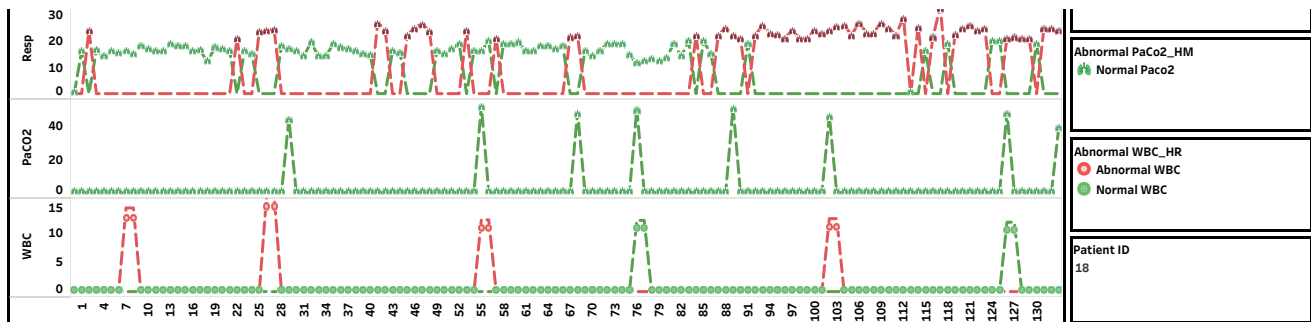
To: oncalldoctor@gmail.com <oncalldoctor@gmail.com>

SIRS Trigger Hour Alert !!!

This is to notify you that Patient 1 has reached the SIRS trigger hour. Please find the patient's current vital signs below:
 Temperature : N/A
 HR : 103
 Resp : 24.5
 PACO2 : N/A
 WBC : N/A

Hourly Monitoring of the Abnormal SIRS Biomarkers





Hourly Monitoring of the 5 SIRS biomarekrs for Patient ID 18 is shown above.

