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Research Article

ANTIBIOTIC DELAY EFFECTS ON SEPSIS MANAGEMENT¹Kosheel Bhatti, ²Sana Sehar, ³Awais Jameel, ⁴Muhammad Afzal, ⁵Dr. Syed Amir Gilani.¹Student: The University of Lahore., ²Assistant Professor: The University of Lahore., ³BSN, MSN⁴Associate professor: The University of Lahore., ⁵Dean faculty of allied sciences. The University of Lahore.**Article Received:** October 2019**Accepted:** November 2019**Published:** December 2019**Abstract:**

Sepsis and febrile neutropenia is one of the common causes in oncology patients which lead to morbidity and mortality. Administration of antibiotic with in 1 hour after identification of sepsis and febrile can improve the survival rate in sepsis and septic shock patient.

The current understanding of pathophysiology and sepsis treatment is associated with a lack of progress in clinical trials, partially indicating a lack of appreciation of this syndrome's heterogeneity. Therefore, more patient-specific treatment approaches should be explored. In nutshell the all contributing factors antibiotic delay so the checklist or tool will really help to reduce this issue secondly the emergency team specially triage nurses play important role on it. Moreover the nurses should be empowered and motivated to raise voice against patient safety.

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INTRODUCTION:

Sepsis and febrile neutropenia is one of the common causes in oncology patients which lead to morbidity and mortality. Administration of antibiotic within 1 hour after identification of sepsis and febrile can improve the survival rate in sepsis and septic shock patient.

It had been observed there was a delay in antibiotic administration in sepsis and Febrile neutropenia in the month of it supposed to be 100% but we were on 62%. There was immense reason

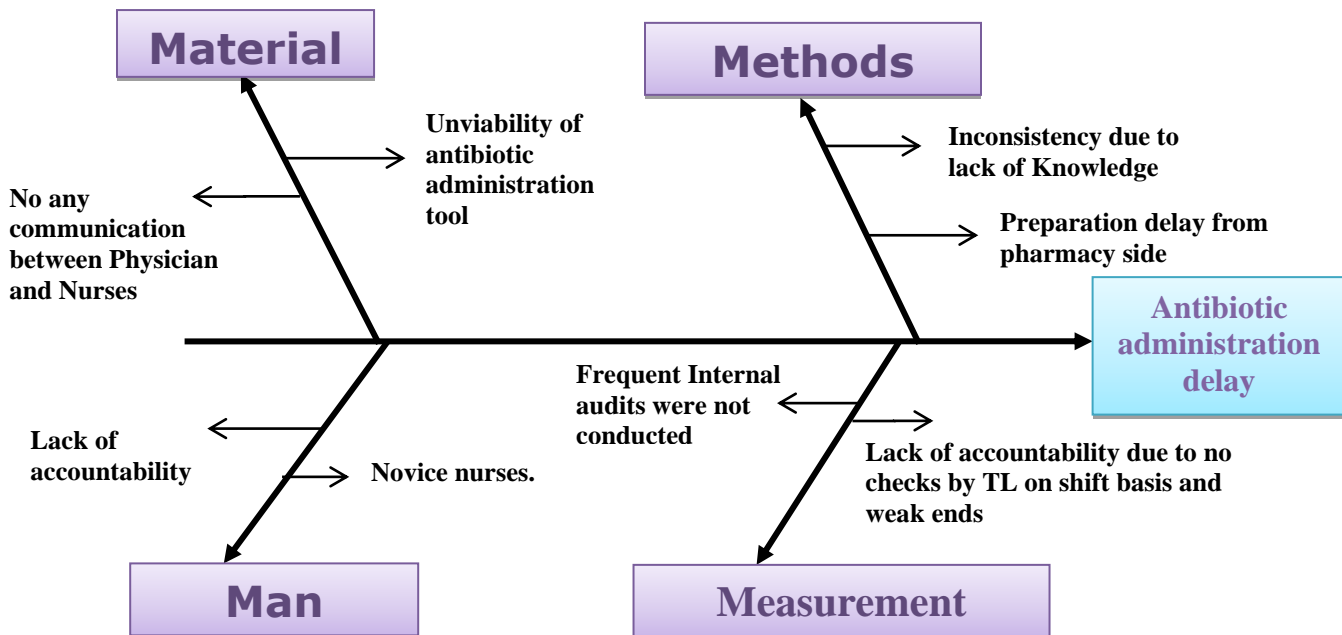
1. No any pathway developed for febrile neutropenia and sepsis patients.
2. Emergency was not designed properly.
3. Communication Issues.
4. Issues in handed over.
5. Pharmacy not prepare antibiotic on time
6. Workload
7. No any tool develop in EAR for monitoring

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in clinical trials, partly reflecting a lack of appreciation of this syndrome's heterogeneity. Therefore, more patient-specific treatment strategies should be considered.

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The Aim of this study 100% administration of antibiotic within 1 hour in sepsis and febrile neutropenia patients. In this review we collected data Prospectively from tertiary care cancer hospital and we reviewed patient who received antibiotic within 1 Hour and we separated Febrile Neutropenia and sepsis and Sepsis patients, further more we taught triage nurse staff informed physician if patient presented in emergency with the complain of fever, Respiratory rate >20, and Tachycardia above 100.

CAUSE & EFFECTS DIAGRAM:**METHODOLOGY:**

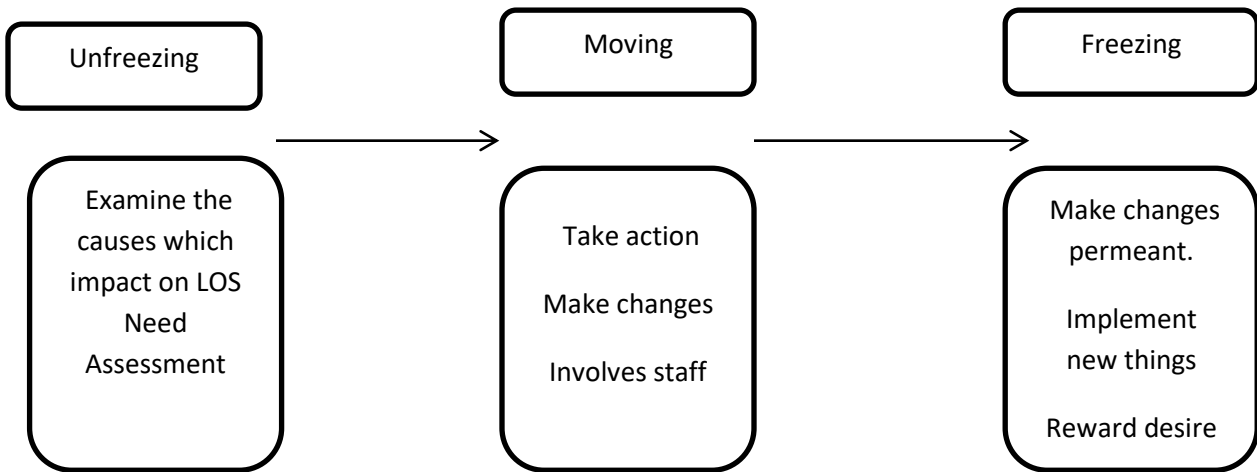
This was an observational study design using emergency data through electronic medicine administration record sheet and only emergency population enrolled in this study. The Emergency consist of 13 beds 8 in adult and 6 in paed. All

patients presenting to the Emergency between January 2019 and September 2019 were included in the study. Apply change theory model in our study.

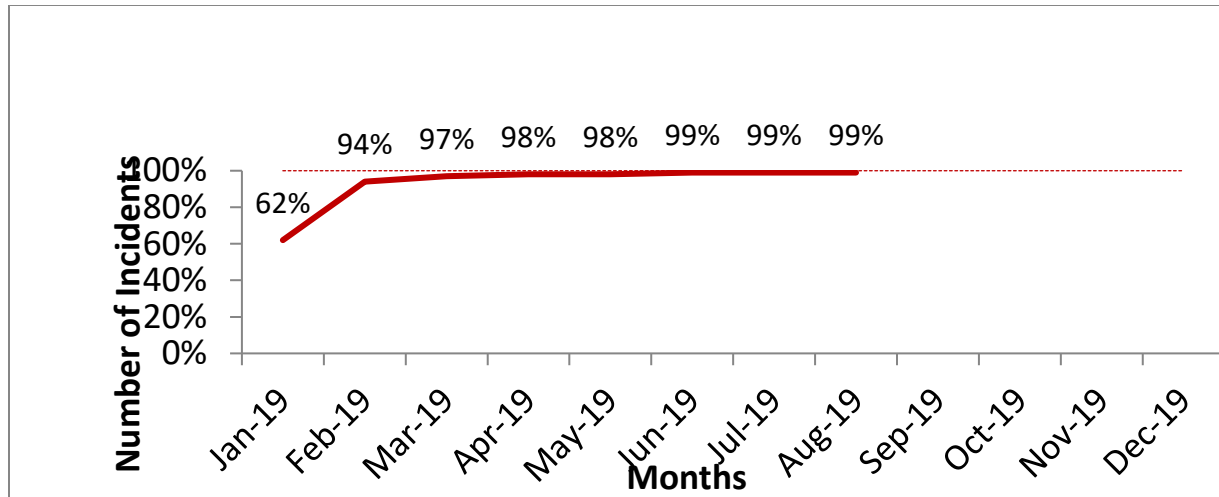
We developed and implementation plan we started with need assessment and identified the different

factors which impact on delay administration of antibiotic we discussed a plan with team and started brain storming that how we overcome that issues in future also shared our plan with staff in morning meetings and our team developed a tool for antibiotic administration and taught triage nurses time communicate physician that patient presented in EAR with sepsis OR febrile neutropenia. also we initiated that nurse physician sepsis and febrile neutropenia pathway through this pathway nurses able to scrutinized sepsis and febrile neutropenia patients and on the basis of nurses communicated to physician and they initiated further plan of care further more we motivated nurses and his initiative

build nurses confidence level as well as nursing staff owned that responsibility moreover we presented our data on weekly basis in EAR core group meeting as well as we shared that data with emergency core group meeting as well as hospital operation committee meeting on monthly basis. Secondly we also shared data with nursing staff in morning meeting and take sessions on it that that we filled those gaps in future. We motivated our staff and started monthly appreciation with directly effect on staff performance Additionally we learned changed theory and we implemented that model in our practice.



(Mitchell, 2003)



RESULTS:

After Implementation the results were constant in the graph through Jan 2019 till September 2019 and it significantly increased in the month of February 2019 and the results inclined 62% to 94% the reasons behind the increasing trend were we reviewed our process, reeducated our staff in the month of Feb after education and follow-up the results and there is a plateau phase since March to September 2019

DISCUSSION:

The team starts brain storming what was the contributing factor that impact antibiotic administration delay this concept led to innovative ideas after that we search literature from the year of 2014 to 2019. 20 were reviewed number article search from data base. CINAHL, PUBMED, GOOGLE SCHOLAR, 10 abstract only 5 have a recommendation to administer antibiotic within 1 hour in sepsis and febrile neutropenia patients, most of the studies were recommended the same thing which mentioned above. And majority of the studies support that antibiotic administration within one hour is very beneficial for sepsis and febrile neutropenia patients and it's directly impact on patient length of In future I suggested to develop a policy, protocol, furthermore we plan workshop for staff.

CONCLUSION:

In nutshell the all contributing factors antibiotic delay so the checklist or tool will really help to reduce this

issue secondly the emergency team specially triage nurses play important role on it. Moreover the nurses should be empowered and motivated to raise voice against patient safety.

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