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Reducing Time to Antibiotics in Patients with Neutropenic Fever on a Bone Marrow Transplant Unit

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Abstract #310

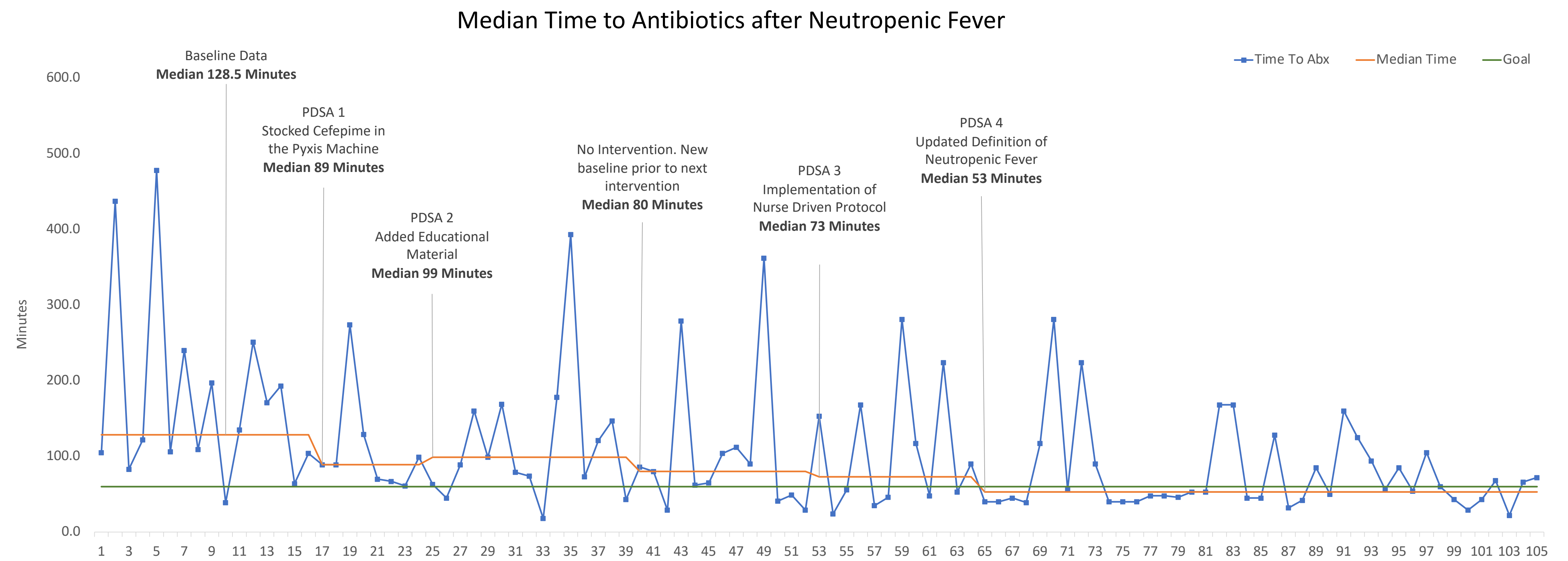
Background/Methods:

- Timely administration of antibiotics in patients with neutropenic fever (NF) is essential for reducing morbidity and mortality among oncology patients.
- The optimal time to antibiotics (TTA) for patients with NF is unclear, but IDSA/ASCO guidelines recommend a median TTA within one hour of documented fever.
- This study focused on identifying barriers at a single academic institution to timely antibiotic administration for patients admitted to the inpatient Bone Marrow Transplant (BMT) unit, and implemented new processes to reduce median TTA to less than 60 minutes

Methods:

- Chart reviews were performed to identify causes for delays in antibiotics (abx).
- Based on a root cause analysis, 4 interventions were implemented: cefepime was stocked in the pyxis (Int 1 - August 2018), NF guidelines were updated (Int 2 - October 2019), educational videos were created for just in time learning for house staff rotating on the oncology services and an education campaign for the nursing staff (Int 3 - June 2020), a nurse driven protocol to release and administer abx was piloted on the BMT (Int 4 - December 2021)

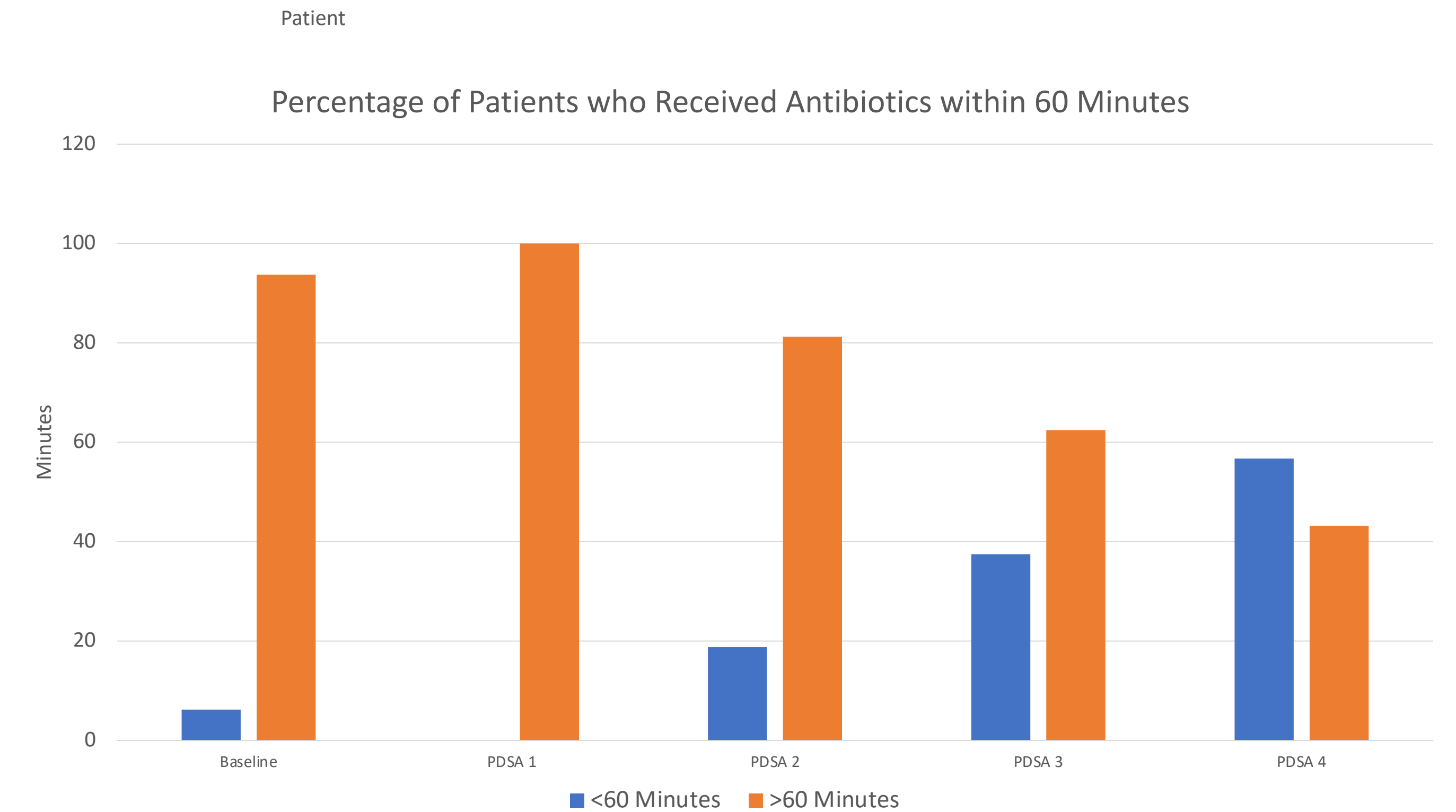
Results/Graphs/Data:



Through iterative changes and process improvement methodology, we were able to improve our median time to antibiotics after neutropenic fever from 128 minutes to 53 minutes.

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Payoff/Effect on Outcome	High	Implement Ensure appropriate abx for initial management of neutropenic fever are in the pyxis	Possible Change workflow so nurses have ability to pull abx as soon as fever reported Develop nursing based order set to draw cultures to ensure they are drawn prior to abx and to prevent delays in hanging abx
	Low	Consider Educate incoming interns and Night float on proper management of neutropenic fever Establish clear neutropenic fever guidelines for the institution	Kill Create Force Function in EPIC to order abx if patient has documented neutropenic fever
		Easy	Hard
Ease of Implementation			