Improving Utilization & Productivity of Pre Admission Anesthesia Clinics (PAAC) at Hamad General Hospital and Bone & Joint Center

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Introduction and background

- **Pre Admission Anesthesia Clinic (PAAC)** provide the opportunity to patients who have been scheduled for elective surgery or non surgical procedure that require anesthesia or sedation to be evaluated to ensure they are in optimum health before date of admission.
- At PAAC, patients are prepared in a friendly relaxed atmosphere, physically, psychologically and socially for their forthcoming operation and their discharge thus improve patients experience of their hospital admission.
- The level of perioperative risk for every patient is estimated for all patients. It indentify co-existing medical illnesses and optimally prepare patients whilst taking into account the urgency of the operation to minimize perioperative risk and improve patients out come. PAAC indentify patients with a high risk of complications in the peri-operative period and define the appropriate post- operative level of care,
- The patient is educated in their peri-operative care plans, has an opportunity to discuss it to ensure every patient understands their own individual risk so that they can make an informed decision. Also, due consideration is given to vulnerable groups of patients.
- PAAC evaluation enhance the quality of the patients peri-operative care, reduces cancellation rate on the day of surgery, reduce length of stay, reduce waste and improve cost-effectiveness of services provision for the organization.
- The analysis of numbers of patient who underwent preoperative anesthesia assessment at Hamad General Hospital (HGH) and The Bone & Joint center (BJC) Pre admission Anesthesia clinics were lower than numbers of patient who underwent surgery.

Aims

- Improve utilization and productivity of PAAC to set goal of 80%.
- Increase number of patients seen in PAAC over 3 months from introduction of improvement interventions
- Monitor system behaviour for sustainability.

Methods

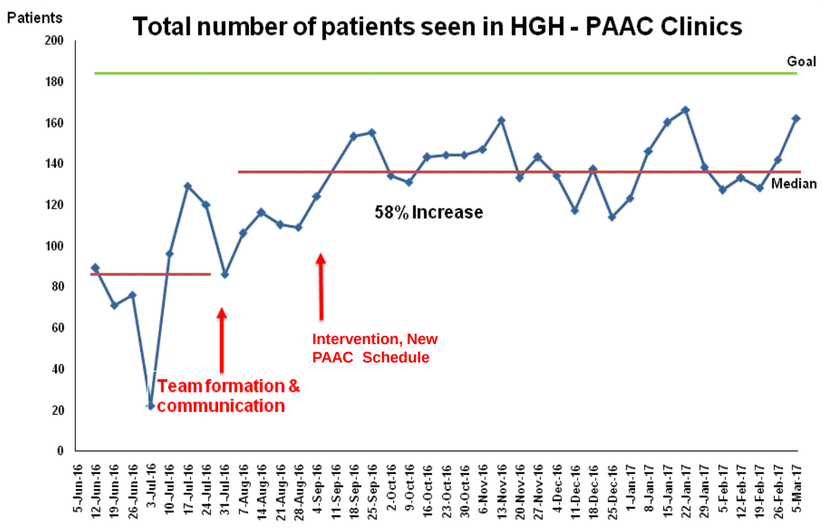
- Root cause analysis was performed to identify and record reasons for PAAC underutilization.
- Link PAAC to scheduling & tracking office pathway.
- Implementation of new PAAC scheduling system in Cerner with allocated break time for staff in September 2016 to increase capacity with out adding resources .
- Communication and education of administrative staff to follow the new scheduling system for booking.
- Outcome metric measures are the numbers of patients seen in PAAC at HGH and BJC in total and according to clinic time.

Results

- The Utilization and Productivity of PAAC has improved both in HGH and Bone & joint center without adding any more resources as shown on following run charts.
- Bone & joint center only have four out of hours evening clinics. It is only for orthopedic patients.
- HGH have ten daytime clinics and five out of hours evening clinics.
- There remain residual capacity in clinics . HGH is 21% short of the goal of 80% while Bone and joint center is short by 10% of the goal 80%.

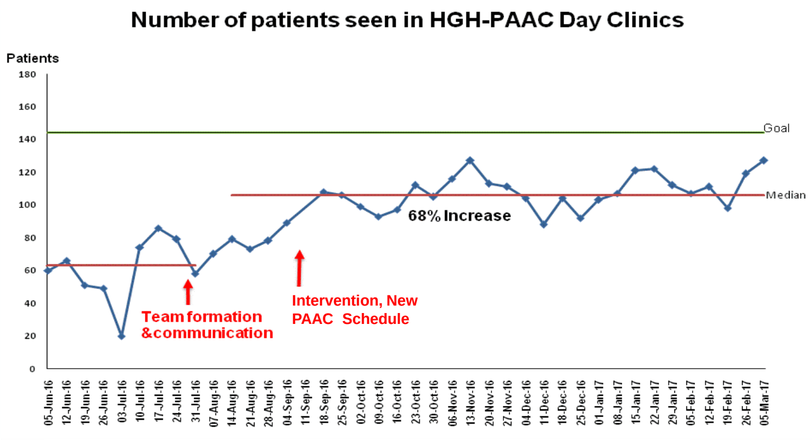
(Figure 1)Total number of patients seen in HGH – PAAC

- The number of patients seen in fifteen clinics including both daytime and evening increased by 58% from base line data and it is sustained.
- The new schedule in HGH can accommodate maximum of 230 patients per week.



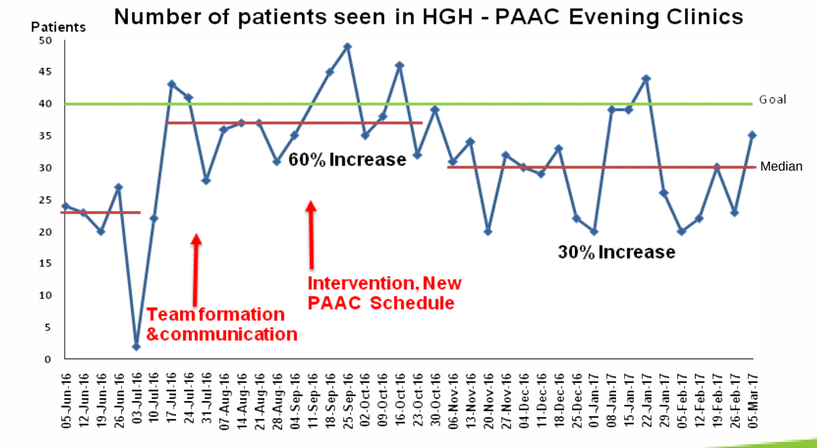
(Figure 2) Number of patients seen in HGH-PAAC Daytime clinics

- The number of patients seen in ten clinics increased by 68% and it is sustained.
- The new schedule can accommodate is 180 patients maximum per week.



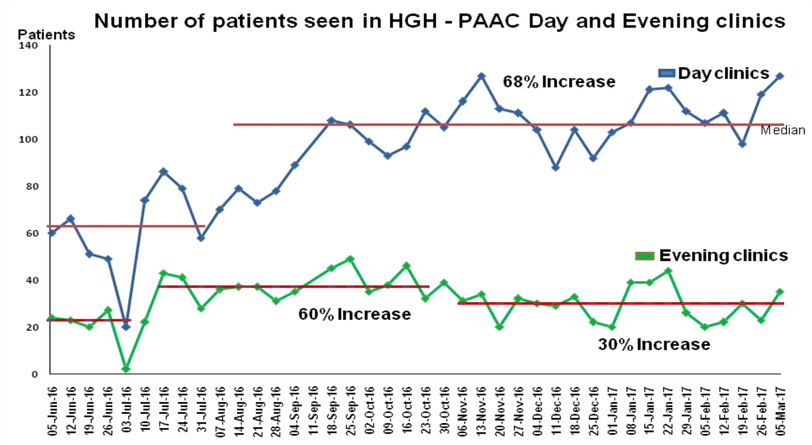
(Figure 3) Number of patients seen in HGH-Evening clinics

- The number of patients seen in four out of hours evening clinics at the start of this project increased by 60% which was not sustained and dropped to 30%.
- The new schedule can accommodate 50 patients maximum.



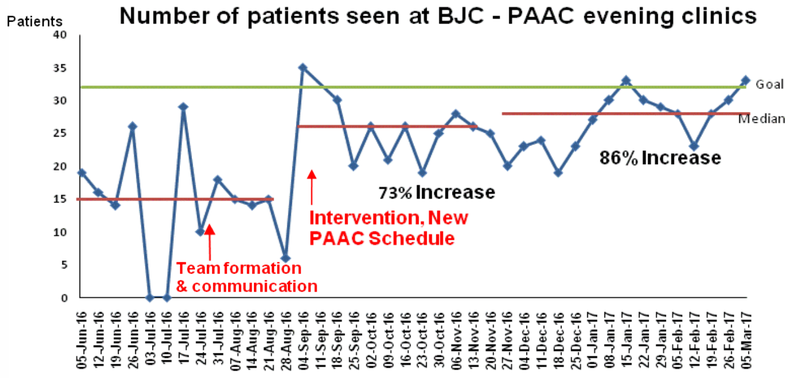
(Figure 4) Number of patients seen in daytime and evening HGH – PAAC clinics

- There is sustained increase in number of patients seen during daytime clinics while the out of hours evening time clinics are demonstrating reduction in number of patients seen..



(Figure 5) Number of patients seen in BJC evening clinics

- The number of patients seen in 4 out of hours evening only clinics increased by 73% followed by further increase to 86%
- The new schedule can accommodate 40 patients maximum per week. There are no daytime clinics at BJC.



Conclusion

- PAAC improvement project increased the total number of patient receiving pre admission anesthesia assessment up to 58% in HGH and 86% in BJC without adding resources.
- In HGH day clinics, there is sustained increase in utilization and productivity while there is reduction in out of hours evening clinics.
- PAAC project is improving patient's access to care and quality of service during perioperative period.
- It is improving patient's readiness for surgery / procedures.
- It is allowing health optimizations for more patients to achieve better outcome and experience.
- It is demonstrating effective solution to run a cost effective service using current resources, adding value and reducing waste.
- It is indentifying the remaining residual capacity that is readily available to accommodate more patients for future HMC plans for service expansion.

Recommendations

- Continue data collection and sustain improvement processes.
- Further study and analysis to identify reasons of non-attendance and methods to increase booking under each specialty is required to improve patients quality of care, health , experience and satisfaction with service.
- Monitor and analyze differences in system behavior and patients numbers between both day time working hours clinics and out of hours clinics for potential cost saving to further improve cost effectiveness, value and reduce waste in resources.

In Collaboration with
Hamad Medical Corporation
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