Antimicrobial Stewardship Program : Focus on Surgical prophylaxis

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Background

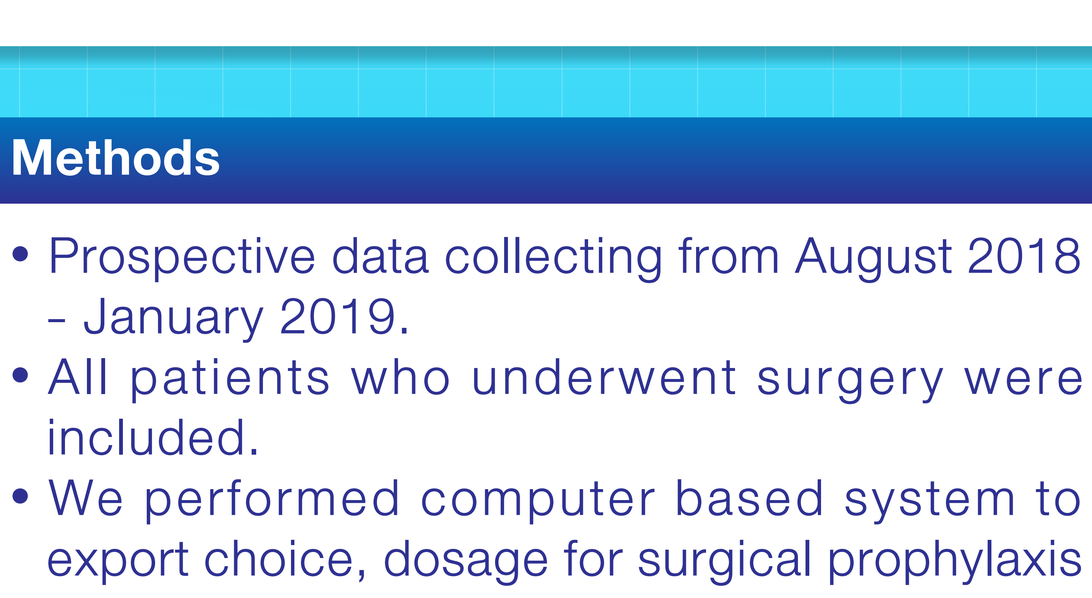
Health care Information (HIS) called iMed using for ordering medications. Antibiotics used for preoperative prophylaxis were dispensed by physicians and administrate by nurses or anesthesiologists. The antimicrobial stewardship program (ASP) has been designed on computer based system since 3 April 2018. ASP interventions were dose recommendation and indication selection only.

Objectives

- To improve appropriateness of surgical prophylaxis.
- To reduce the surgical site infection by using antimicrobial stewardship interventions.

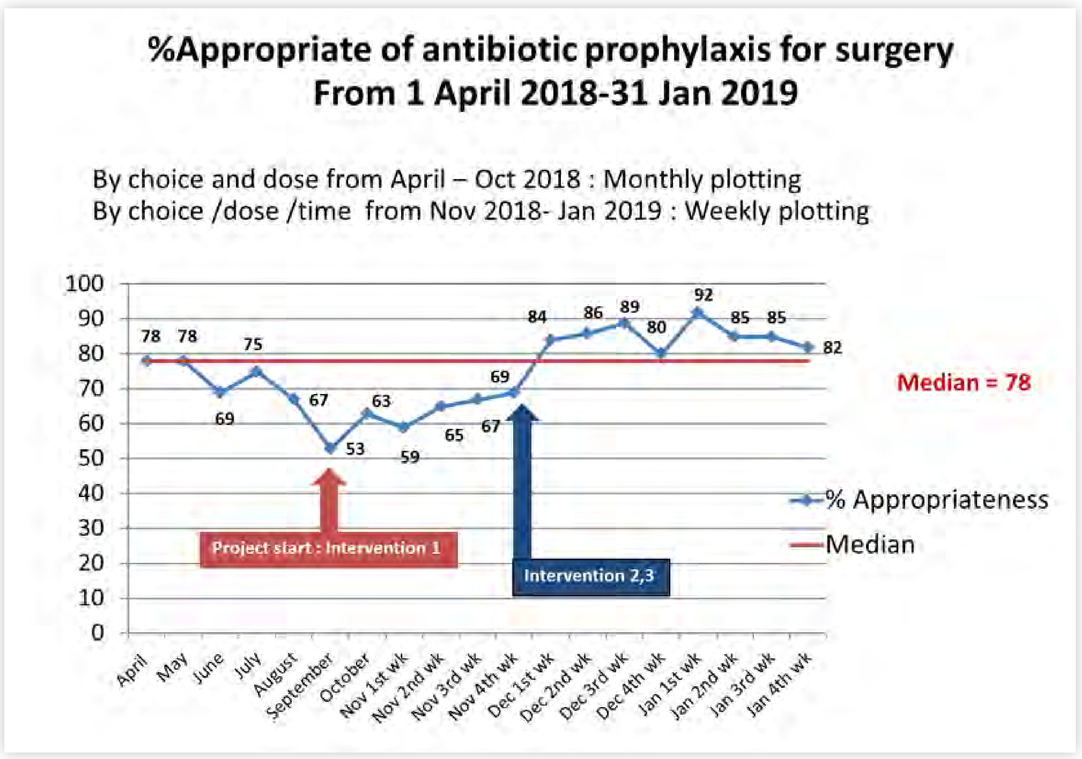
Methods

- Prospective data collecting from August 2018 - January 2019.
- All patients who underwent surgery were included.
- We performed computer based system to export choice, dosage for surgical prophylaxis and procedure type.
- Time before incision and re dosing determined by manual chart review.
- Three ASP Interventions included electronic surgical prophylaxis guideline, Individual feedback, alarm system in electronic order have been implemented .

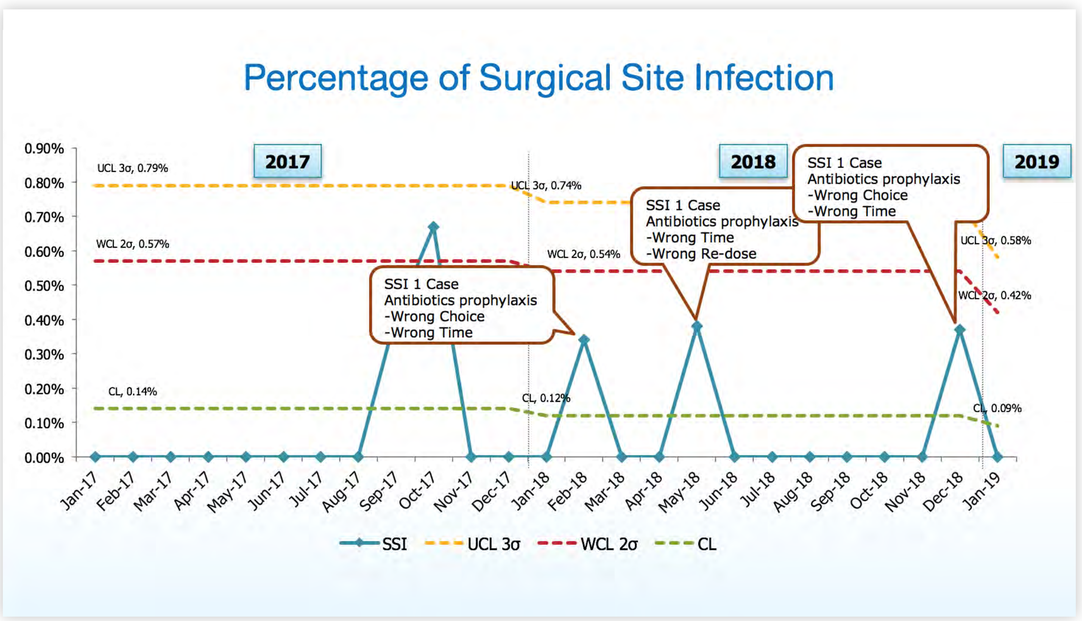


Results

Total number of procedures are 1,163 procedures. Before ASP intervention, the baseline appropriateness rate of surgical prophylaxis was about 53-78 % (choice and dose, not include time and re dosing) After 3 ASP interventions have been implemented. Percent of appropriateness gradually increased from 53 up to 92 percent by choice, dose, time before incision and sustained.The mainly subject that still did not improve was re dosing.



There was only one case of surgical site infection who received wrong choice and too long time before incision during the study.



Conclusion

Combination of Antimicrobial stewardship interventions are key success to improve appropriateness of surgical prophylaxis.