

## INTRODUCTION

Administration of antibiotic prophylaxis prior to surgery has been routine practice to decrease the risk of postoperative wound infections. Subsequently, studies have debated the benefit of antibiotic prophylaxis in elective orthopaedic surgery compared to the potential risks including rash, diarrhea or more serious reactions. To our knowledge no study has prospectively followed patients to monitor for adverse reactions and complications following routine administration of antibiotics at the time of surgery.

The purpose of this exhibit is to:

- Identify rate of reaction to single dose prophylactic antibiotics.
- Identify types of reactions to antibiotics administered at the time of surgery.
- Evaluate the rate of post operative infection following elective outpatient hand surgery.

## MATERIALS & METHODS

All patients undergoing outpatient upper extremity surgery by five surgeons were prospectively followed between April and June of 2017. Patients were monitored while at the surgical center, contacted by phone and evaluated at their two-week post operative visit to monitor for adverse reactions related to antibiotic administration. Patients were excluded if they were on antibiotics prior to surgery, if they did not receive antibiotics at the time of surgery or if they wished to be excluded from the study.

- 411 Patients were identified
- 4 were excluded due to antibiotic treatment leading up to surgery
- 5 requested not to participate

## RESULTS

- 402 patients were included in the study
- 7 patients (1.74%) reported adverse reactions related to antibiotic administration.
  - Four patients reported a rash; two patients developed the rash during the administration of antibiotics.
  - Two Patients reported diarrhea (0.5%)
  - One patient reported a yeast infection (0.2%), patient discharged on antibiotics
- A total of 58 patients were discharged on a short course of oral antibiotics by one surgeon as part of his routine practice (14.4%).

FIGURE 1

Patient	Age	Gender	Reaction	Surgery
1	68	M	Rash	Trigger Thumb Release
2	73	F	Rash	Carpal Tunnel Release
3	63	F	Rash	Carpal Tunnel Release
4	47	F	Rash	Carpal Tunnel Release
5	50	F	Diarrhea	Trigger Thumb Release
6	86	M	Diarrhea	Carpal Tunnel Release
7	47	F	Yeast infection	Mucous Cyst excision

Post Operative Reaction to Prophylactic Antibiotic Administration

## DISCUSSION

- All patients with rash and diarrhea had resolution of symptoms within a few days of onset
  - All were asymptomatic at two weeks post operatively and remained asymptomatic
- No patient developed anaphylaxis, C. difficile or any reaction requiring readmission.
- Despite discussion in the literature regarding the risks of preoperative antibiotic administration, our study found a low rate of adverse reactions with no serious complications.
- We conclude that the use of single dose prophylactic antibiotic is safe for routine administration

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