



To Analyse Post Surgical Site Infection In Orthopaedics Surgery

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Abstract

Introduction: Use of antibiotic where there is no evidence of infection. but expected to be exposed to pathogens that constitutes a major risk of Infection. Single dose regime, based on the most common organism, which is given at the time of infection to ensure the minimum inhibitory concentration during skin incision. Reduces risk of surgical site infection post operatively.

Aim: To achieve <5% infection rate post operatively

Objective: Proper application of pre op antibiotics 1hr before surgery

Standard: To check proper application of pre op antibiotics 1hr before skin incision

Type of Study: Outcome

Sample Size: 30

Period of Audit: 1/11/16 – 1/1/17 IN PSG HOSPITALS

Discussion: Out of 30 patients only one patient got infected (3.3%). Pre op antibiotics play a vital role in preventing post op infection in orthopaedic surgery. The key factors which lead to post op infections are patient age related comorbidities (T2DM, SHT), open injury, high velocity trauma etc.

Recommendations: Usually a single dose is sufficient. A second dose may be required in case of prolonged operations and Contamination. Giving more than 1 or 2 doses post operatively or Prophylactic antibiotics until drain removal is not Advised. In order to prevent post surgical

site infection in Orthopaedic surgery proper application pre op antibiotics, intra operative sterile precautions and post Op sterile dressing should be strictly followed.

Introduction:

- Use of antibiotic where there is no evidence of infection. but expected to be exposed to pathogens that constitutes a major risk of infection
- Single dose regime, based on the most common organism, which is given at the time of infection to ensure the minimum inhibitory concentration during skin incision. Reduces risk of surgical site infection post operatively

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Data Collection:

Patients admitted in PSG Hospital information collected from ip case sheet

Diagnosis:

Surgical plan:

Date of surgery:

Pre op antibiotics given: Yes/No

Antibiotic used:
Time lapse from antibiotic dose to skin incision:
Post op antibiotics day

Inclusion Criteria And Exclusion Criteria:

Type of Study: OUTCOME

Sample Size: 30

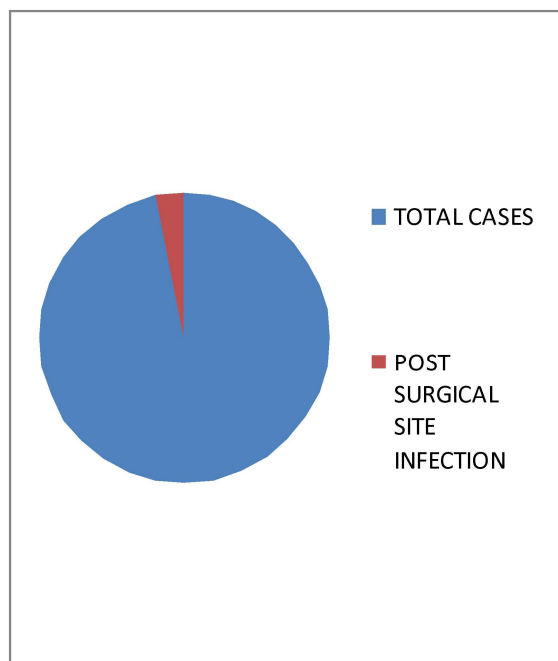
Period of Audit: 1/11/16 – 1/1/17 IN PSG HOSPITALS

Exceptions (IF ANY):

Open fracture/ Osteomyelitis / Pathological fracture admitted in PSG hospital

Observation:

100% of patients have given proper
Application of pre op antibiotics with in 1hr before surgery
Results



Out of 30 patients only one patient got infected (3.3%).

Discussion:

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- Pre op antibiotics play a vital role in preventing post op infection in orthopaedic surgery
- The key factors which lead to post op infections are patient age related comorbidities (T2DM , SHT),open injury, high velocity trauma etc

Recommendations:

- Usually a single dose is sufficient. A second dose may Be required in case of prolonged operations and Contamination
- Giving more than 1 or 2 doses post operatively or Prophylactic antibiotics until drain removal is not Advised
- In order to prevent post surgical site infection in Orthopaedic surgery proper application pre op antibiotics, intra operative sterile precautions and post Op sterile dressing should be strictly followed

References:

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Master Chart:

PT CODE	DIAGNOSIS	SURGERY UNDER- WENT	ANTIBIOTIC USED	GIVEN PREOP	TIME GAP	RESULT
1	BILATERAL CALCANEAL FRACTURE	OPEN REDUCTION AND PLATE FIXATION	COVATIL	YES	1HR	NIL POST OP- ERATIVE INFECTION
2	LEFT SUBTRO- CHANTERIC FRACTURE	CANCELLOUS SCREW FIXATION	COVATIL	YES	30 MIN	INFECTED
3	UNILATERAL CALCANEAL FRACTURE	CANCELLOUS SCREW FIXATION	COVATIL	YES	1HR	NIL
4	LEFT INTER- TROCHANTERI C FRACTURE	DHS FIXATION	COVATIL	YES	1 HR	NIL
5	RIGHT OA KNEE	RIGHT TOTAL KNEE REPLACEMENT	VANCOMYCIN COVATIL	YES	45MIN	NIL
6	SHOULDER IMPINGEMENT	SUB ACROMIAL DE- COMPRESSION	COVATIL AMIKACIN	YES	1 HR	NIL
7	LEFT ACL IN- JURY	ARTHROSCOPIC ACL REPAIR	COVATIL AMIKACIN	YES	50 MIN	NIL
8	D12 COM- PRESSION FRACTURE	VERTEBROPLASTY	COVATIL	YES	1HR	NIL
9	RIGHT INTER- TROCHANTERI C FRACTURE	DHS FIXATION	COVATIL	YES	25 MIN	NIL
10	RIGHT OA KNEE	RIGHT TOTAL KNEE REPLACEMENT	COVATIL VANCOMYCIN	YES	1HR	NIL

11	RIGHT BOTH BONE FRACTURE	IM NAILING	COVATIL	YES	1HR	NIL
12	EXTRA ARTICULAR DISTAL RADIUS FRACTURE	OPEN REDUCTION AND INTERNAL FIXATION	COVATIL	YES	1HR	NIL
13	LEFT INTERTROCHANTERIC FRACTURE	DHS FIXATION	COVATIL	YES	30 MIN	NIL
14	DISTAL 1/3 RD FIBULA FEACTURE	OPEN REDUCTION AND INTERNAL FIXATION	COVATIL	YES	1HR	NIL
15	LEFT OA KNEE	LEFT TOTAL KNEE REPLACEMENT	COVATIL VANCOMYCIN	YES	1HR	NIL
16	RIGHT ANKLE BIMALLEOLAR FRACTURE	OPEN REDUCTION AND INTERNAL FIXATION	COVATIL	YES	1HR	NIL
17	LEFT NECK OF FEMUR FRAC- TURE	BIPOLAR HEMI- ARTHROPLASTY	COVATIL	YES	1HR	NIL
18	LEFT SUBTROCHANTERIC FRACTURE	PFN FIXATION	COVATIL	YES	45 MIN	NIL
19	RIGHT OA KNEE	RIGHT TOTAL KNEE REPLACE- MENT	COVATIL	YES	1 HR	NIL
20	RIGHTINTER TROCHANTERIC	DHS FIXATION	COVATIL	YES	1HR	NIL

21	RIGHT PERTROCHANTERIC FRACTURE	DHS FIXATION	COVATIL	YES	45 MIN	NIL
22	RIGHT TRIMALLEOLAR FRACTURE	OPEN REDUCTION AND INTERNAL FIXATION	COVATIL	YES	1 HR	NIL
23	LEFT OA KNEE	LEFT TOTAL KNEE REPLACEMENT	COVATIL VANCOMY-CIN	YES	1HR	NIL
24	RIGHT SHOULDER CALCIFIC TENDINITIS	ARTHROSCOPIC SUBACROMIAL DECOMPRESSION	COVATIL	YES	1HR	NIL
25	RIGHT PROXIMAL TIBIAL PLATEAU FRACTURE	CANCELLOUS SCREW FIXATION	COVATIL	YES	1HR	NIL
26	RIGHT NECK OF FEMUR FRACTURE	BIPOLAR HE-MIARTHROPLASTY	COVATIL	YES	1HR	NIL
27	RIGHT INTERTROCHANTERIC FRACTURE	DHS FIXATION	COVATIL	YES	1HR	NIL
28	RIGHT INTERTROCHANTERIC FRACTURE	DHS FIXATION	COVATIL	YES	1HR	NIL
29	LEFT SHAFT OF ULNA FRACTURE	OPEN REDUCTION AND PLATING	COVATIL	YES	1HR	NIL
30	LEFT OA KNEE	LEFT THR	COVATIL	YES	1HR	NIL