ABSTRACT

Antibiotic Utilization Study For Closed Fracture Cases in Orthopaedic Surgery (Study at Airlangga University Hospital Surabaya)

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Closed fracture cases can be handling with internal fixation. Internal fixation is the mounting pin, screw or plate on a fracture bone. On the handling of internal fixation with closed fractures including types of potentially infected clean operation is 2-4%, so that the needed antibiotic prophylaxis.

Antibiotic utilization study used for review the route of administration , dosage and duration of therapy of antibiotics in closed fractures and Identify Drug Related Problems (DRP) that occurred .

In this study used retrospective and prospective method with descriptive analysis. Samples were taken in January 2014 until December 2015 for a retrospective, while for prospective sample taken in January 2016 to May 2016. The sample is obtained (n = 55).

Antibiotics are used in closed fractures as prophylactic Orthopedic Surgery consists of a single antibiotic and antibiotic combination. Single antibiotic among others Sefazolin 2 g (iv) 52.73%, Seftriakson 2 g (iv) 5.45%. Antibiotic combination among others Seftriakson 1 g (iv) and Gentamicin 80 mg (iv) 3.64%, Sefazolin 2 g (iv) and Gentamicin 160 mg (iv) 38.18%. In the case of a closed fracture in Airlangga University Hospital Surabaya also given extended prophylaxis among other combinations Seftriakson 2x1 g (iv) and Gentamicin 2x80 mg (iv) 3.64%, the combination of Sefazolin 3x1 g (iv) and 2x80 mg Gentamicin (iv) 41.82%. While a single extended prophylaxis is Sefazolin 3x1 g (iv) 45,45 %, Seftriakson 2x1 g (iv) 5.45%, Sefuroksim 3x1 g (iv) 1,82%. Long post surgical care Closed Fracture is approximately 2-4 days (58.18%). DRP is a potential side effect of gentamicin usage may lead to nefrotoksik.

From research can be known the dose and route for closed fracture cases use in Surabaya's Airlangga University Hospital is in compliance with the guidelines.

Keywords : Antibiotic prophylaxis, closed fracture, orthopaedic, DUS (Drug Utilization Study)