## **ABSTRACT**

## STUDY OF KETOROLAC IN **CLOSED FRACTURE PATIENTS**

(Research on Orthopaedic Cases at the Hospital of **Universitas Airlangga Surabaya)** 

## Alin Aristiani

Closed fracture is a bone disorder that occurs due to discontinuity of bone tissue and caused moderate to severe pain. Ketorolac is an NSAIDs non - selective COX inhibitor which is used to treat moderate to severe pain.

This study was conducted to determine the use of ketorolac (dose regimens and duration of use) and to identify Drug Related Problems.

The study used descriptive analysis by collecting the retrospective data of orthopaedic patients admitted at the Hospital of Universitas Airlangga Surabaya on 1st January 2014 until 31st December 2017 which match the inclusion criteria.

In this study, there are 62 patients that fullfilled inclusion criteria. Patients used ketorolac (3x30 mg) IV (11%), in combination two analgesics (13%), in three combination analgesics (3%), and switching ketorolac (73%). Ketorolac (3x30 mg) IV + metamizol (3x1 g) IV are used to treat mild pain and ketorolac (3x30 mg) IV + tramadol (3x100 mg) IV + metamizol (3x1 g) IV are used to treat moderate to severe pain.

Closed fracture patients used ketorolac with a right dose, right route of administration, and right duration of use (3x30 mg IV not exceed 5 days). Drug Related Problems that identified in this study was actual adverse drug reaction (ketorolac + metamizol) caused nausea and abdominal pain.

Keywords: Closed Fracture, Ketorolac, Pain