

**ABSTRACT**  
**DRUG UTILIZATION STUDY OF CALCIUM SUPPLEMENTS AND  
VITAMIN D IN FRACTURE PATIENTS**  
**(Research carried out in the Orthopedi and Traumatology Outpatient  
Installation of Dr. Sutomo Surabaya Hospital)**

The process of bone healing for lower extremities fractures patients relatively need long time and requires the presence of matrix proteins and mineral deposits. To speed up the process of bones healing, it is necessary to be given a calcium supplement therapy (as bone mineral) and vitamin D (increase calcium absorption in the gastroduodenal). Regarding to previews statement, it need to know the type, dosage, usage and long use of calcium supplements and vitamin D for lower extremities fracture patients in Dr. Sutomo Surabaya Hospital.

This research uses retrospective descriptive method, with total sample of 31 patients in the period of January 1, 2013 to December 31, 2013. From total 31 patients, there were 22 patients (71,0%) given a calcium supplement therapy, 5 patients (16,1%) were given vitamin D (Calcitriol), and 4 patients (12,9 %) were given combination supplements of calcium and vitamin D. Type of calcium supplement for 22 patients (100%) is a salt calcium lactate with an appropriate dose of literature, 19-50 years is 1000 mg/day and more than 51 years 1200 mg/day, whereas vitamin D dose is 0.25-1 mcg/day. Long use of calcium supplements and vitamin D each patient is different, depending on the conditions, wound inflicted, bone damage and the fracture severity.

Calcium treatment that contains lactic salts type for lower extremity fracture patients have been appropriate because calcium lactate has good absorption and relatively low side effect.

Keywords: calcium lactate, calcium carbonate, vitamin D, calcitriol, fracture of the lower extremity