

ABSTRACT

PT XYZ is one of the manufacturing companies which engaged in pharmaceutical industry. One of their products that has the largest production in 2018 is Amlodipine 5/80 mg. Based on the company's historical data, it shows that shipment of Amlodipine 5/80 mg has been delayed every months from determined schedule. This is due to problem of waste during the production process of amlodipine 5/80 mg. To solve these problems, further research is conducted using a lean manufacturing approach. After mapping current state value stream mapping (VSM) and process activity mapping, it shows that one of the wastes that occurred in production process of amlodipine 5/80 mg was waste waiting with percentage of 9,04%. Therefore, improvement to the production process of amlodipine 5/80 mg are needed to minimize waste waiting. Furthermore, identify the root cause of waste waiting by using fishbone diagram. The proposal to minimize waste waiting is to determine the optimum drying temperature with taguchi method, design an alarm in FBD machine,, design a deduster to reduce dust of tablet in tableting machine, preventive maintenance of roll bearing components for tableting machine, and visual display for primary packaging machine. Based on the proposed improvement plan, a future state value stream mapping (VSM) mapping is carried out which results in a lead time reduction of 368.77 minutes (6.15 hours).

Key words: *Pharmaceutical Industry, Lean Manufacturing, Process Activity Mapping, Value Stream Mapping, Waste Waiting*