**ABSTRACT**

The complete elimination of waste is the target of any qualified system. This concept is vitally important today since in today’s highly competitive world there is nothing one can waste. This project attempts to apply the principles of lean manufacturing in the service sector in LibyaBenghazi Medical Center with the purpose of eliminating wastes and increasing capacity. Software called Arena was used to expose the waste and identify a proposed plan for improvement. The results achieved in the proposed plan showed significant improvements in the overall performance of the system, which allow the system to be moreproductive, flexible, smooth and with high quality service.