## ABSTRAK

PT. Sanbe Farma Unit III merupakan perusahaan yang bergerak dalam farmasi yang memproduksi sediaan obat steril. Salah satu produk steril yang dihasilkan adalah Infusan RL 500 ml *Single Port Flip-Off*. Produk ini merupakan produk unggulan perusahaan, namun dalam proses produksinya masih ditemukan kendala, yakni masih adanya cacat kemasan yang mempengaruhi kualitas produk. Produk kemasan Infusan RL 500 ml *Single Port Flip-Off* mengalami cacat produksi berupa: partikel asing, kebocoran dan cacat tubing. Pada tahun 2022 rata-rata produk yang mengalami cacat tubing mencapai 2,41%, yang melebihi batas toleransi perusahaan yaitu <0,8%.

Tujuan penelitian ini untuk menghitung nilai *Defect Per Million Opportunities* (DPMO) dan nilai level sigma pada kemasan cacat tubing, menentukan faktor penyebab kemasan cacat tubing dan memberikan usulan untuk perbaikan kualitas kemasan cacat tubing produk Infusan RL 500 ml *Single Port Flip-off* di PT Sanbe Farma Unit III.

Berdasarkan hasil pengolahan data berdasarkan metode *Six Sigma*, diperoleh nilai DPMO 34.703,93 *defects per million* dan nilai level sigma 3,33. Dari hasil analisis menggunakan *5 Why's Analysis* diperoleh faktor-faktor penyebab cacat diantaranya: faktor mesin yaitu pisau tumpul dan *gripper stopper* bergeser, faktor manusia yaitu operator kurang hati-hati, serta faktor material yaitu adanya gumpalan butiran silika pada bagian dalam tubing. Pada tahap *improve* menggunakan metode analisis 5W 1H, didapatkan usulan perbaikan diantaranya: membuat jadwal pemesanan pisau, pergantian pisau pada mesin secara berkala, pemeriksaan mesin rutin sebelum digunakan, pengaturan ulang jadwal produksi, pengawasan di setiap *shift* oleh *supervisor*, pembuatan standar operasional produksi yang mendetail dan pembaruan standar pemeriksaan bahan kemas tubing.



**Kata kunci**: Kemasan, Pengendalian Kualitas, *Six Sigma, DMAIC*.

## *ABSTRACT*

*PT. Sanbe Farma Unit III is a pharmaceutical company that produces sterile drug preparations. One of the sterile products made is RL Infusion 500 ml Single Port Flip-Off. This product is the company's superior product, but there are still problems in the production process, namely packaging defects that affect product quality. Product packaging for Infusion RL 500 ml Single Port Flip-Off has production defects in the form of foreign particles, leaks and tubing defects. In 2022 the average number of products with tubing defects will reach 2.41%, which exceeds the company's tolerance limit of <0.8%.*

*The purpose of this study was to calculate the Defect Per Million Opportunities (DPMO) value and sigma level value on defective tubing packaging, determine the factors causing defective tubing packaging and provide suggestions for improving the quality of defective tubing packaging for RL Infusion 500 ml Single Port Flip-off at PT Sanbe Farma Unit III.*

*Based on the data processing results based on the Six Sigma method, a DPMO value of 34,703.93 defects per million was obtained and a Sigma level value of 3.33. From the results of the analysis using 5 Why's Analysis, the factors causing the defects include: the mechanical factor, namely the blade is blunt, and the gripper stopper shifts; the human factor, namely the operator is not careful; and the material factor, namely the presence of clumps of silica grains on the inside of the tubing.*

*In the improvement stage using the 5W 1H analysis method, suggestions for improvements were obtained, including making a schedule for ordering knives, changing knives on the machine regularly, routine machine checks before use, rearranging production schedules, supervision in each shift by supervisors, making detailed production operational standards and updating standards for inspection of tubing packaging materials.*



***Keywords**: Packaging, Quality Control, Six Sigma, DMAIC.*