ABSTRAK

PT XYZ merupakan perusahaan manufaktur di bidang farmasi yang memproduksi obat-obatan, vitamin dan peralatan medis. Permasalahan yang sedang dihadapi oleh perusahaan yaitu terkait dengan proses pengendalian kualitas yang harus diperhatikan agar produk yang dihasilkan tidak *out-of specification*. Pengendalian kualitas memiliki peranan penting dalam menghasilkan produk yang sesuai dengan standar kualitas yang ada. Penelitian ini bertujuan untuk menganalisis kualitas kadar vitamin B6 *(pyroxidine hydrocloride)* dalam obat *effervescent* di PT. XYZ dan menganalisis pengaruh penerapan peta kendali *Exponentially Weighted Moving Average (EWMA)* terhadap kestabilan hasil analisis kadar vitamin B6 (*pyroxidine hydrocloride)* dalam tablet *effervescent*. Peta kendali X-R dan metode *Exponentially Weighted Moving Average (EWMA)*. Penerapan metode *Exponentially Weighted Moving Average (EWMA)* digunakan untuk mengidentifikasi deviasi kualitas secara dini dan memberikan informasi yang berguna dalam proses pengendalian kualitas. Hasil penelitian ini menunjukkan bahwa terdapat beberapa gejala yang menunjukkan akan adanya ketidaksesuaian kadar vitamin B6 *(pyroxidine hydrocloride)* dalam tablet *effervescent* di PT. XYZ. Maka dari itu perlu diadakannya penyempurnaan dalam bagian produksi untuk menghasilkan produk yang sesuai dengan standar dengan menggunakan *tools fishbone diagram* yang bertujuan untuk mengidentifikasi penyebab atau akar masalah dari permasalahan tersebut. Selanjutnya pada tahap perbaikan *(improvement)* diusulkan usulan perbaikan dengan pendekatan 5W+1H yang diharapkan mampu memperbaiki kualitas produk yang dihasilkan.

Kata kunci: *Vitamin B6 (pyroxidine hidrocloride), Exponentially Weighted Moving Average* (EWMA), Pengandalian Kualitas, Peta Kendali X-R, *Fishbone Diagram*, 5W+1H

ABSTRACT

PT XYZ is a manufacturing company in the pharmaceutical sector that produces medicines, vitamins and medical equipment. The problem that is being faced by the company is related to the quality control process that must be considered so that the products produced are not out-of-specification. Quality control has an important role in producing products that comply with existing quality standards. This study aims to analyze the quality of vitamin B6 (pyroxidine hydrochloride) levels in effervescent drugs in PT. XYZ and analyzed the effect of the application of Exponentially Weighted Moving Average (EWMA) control map on the stability of the results of vitamin B6 (pyroxidine hydrochloride) content analysis in effervescent tablets. X-R control map and Exponentially Weighted Moving Average (EWMA) method. The application of the Exponentially Weighted Moving Average (EWMA) method is used to identify quality deviations early and provide useful information in the quality control process. The results of this study show that there are several symptoms that indicate a mismatch in vitamin B6 (pyroxidine hydrochloride) levels in effervescent tablets at PT. XYZ. Therefore, it is necessary to make improvements in the production section to produce products that are in accordance with the standards by using fishbone diagram tools which aim to identify the cause or root of the problem. Furthermore, at the improvement stage, an improvement proposal with a 5W+1H approach is proposed which is expected to be able to improve the quality of the products produced.

Keywords: *Vitamin B6 (pyroxidine hydrochloride), Exponentially Weighted Moving Average (EWMA), Quality Reliability, X-R Control Map, Fishbone Diagram, 5W+1H.*