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Application of Statistical Tools to Improve Performance in an Assembly Line of Medical Products

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Abstract: The statistic has a wide range of applications in industry, but it could help us to improve the performance of highly manual processes? The production processes of medical products can become handicraft to call in some way, many of them are based on manual ability of its employees, and these may become the process very vulnerable in reference to production capacity, quality of the products and performance. In an industry so restricted by standards and laws such as the medical industry, the application of statistical tools such as analysis of variance, capacity studies, tests of normality and R & R to name a few are needed to reduce variation and improve control this type of process.

This article is based on a production process of cardiac ablation catheters. Statistical tools (ANOVA, Normality Test, Capability Studies, etc.) are applied in different seasons of the process in order to improve production performance. The application of statistical tools helps us determine the stations of the process with the biggest deficiency; based on the analysis, corrective actions to improve the efficiency and quality of the stations will be implemented. Actual data from the production process will be shown.

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