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Variance Analysis of a Clinical Pathway of Lung Resection: A Hong Kong Single Institutional Experience

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Introduction

Clinical Pathways are structured longitudinal treatment plans which include a multidisciplinary and non-hierarchical approach to streamline patient care at an institutional level. Clinical Pathways are increasingly used with the aims of improving quality of care, effectiveness of perioperative treatment, and cost management. The benefits of clinical Pathways were well documented, but on the other hand, periodical variance analysis is also important in maintaining its quality and applicability in the long run.

Objectives

To evaluate the efficacy of the current clinical pathway for lung resections.

Methodology

This study examined variances from expected clinical pathway outcomes for lung resection surgery (appendix A) performed in Cardiothoracic Unit, Prince of Wales Hospital between March and May 2015. Data on a total of 22 patients were retrospectively analyzed.

Result

Among the studied group, surgical procedures included wedge resection, lobectomy and pneumonectomy with approaches either Thoracotomy, Video Assisted Thoracoscopic surgery (VATS) or single port VATS were employed. The mean Length of Hospital Stay (LOS) was 4.27 days (range 1-13 days). All targeted interventions were able to carry out and complete with the preset outcomes except the items namely "days of chest drain removal" and "self-urinating after operation". Failure in self-urinating was the most frequently observed variance from the expected outcomes. Although it accounted for 36.4% (8 / 22), patients' past medical history contributed to this substantial variance. Moreover, persistent air-leakage was the major contributing factor which caused delaying in chest drain removal and thus prolonged hospitalization. It only affected 2 patients (9%) in which were not significant to suggest an amendment of the current pathway. This study showed the single

institutional experience of the clinical pathway for lung resection. This clinical pathway is useful and applicable in managing patients undergo lung resection surgery.