

## ABSTRACT

**Background:** Quality and affordable health service is still an issue today. Clinical Pathway can be a tool to be used for quality and cost control, but research on the effectiveness of Clinical Pathway is still very limited.

**Objective:** This study aims to measure the impact of the implementation of Clinical Pathway Non-Hemorrhagic Stroke on the length of stay and the cost of care for stroke patients at Panti Nugroho Hospital Yogyakarta.

**Methods:** This study design is cohort retrospective with 350 medical records of stroke patients admitted in Panti Nugroho Hospital as the subjects which fulfilled the inclusion and exclusion criteria. Data were obtained from October 2017 to September 2019, using purposive sampling method. Length of stay, examination costs, drug costs and total inpatient costs were the clinical outcomes measured.

**Results:** The study was conducted on 350 new non-hemorrhagic (ischemic) stroke patients admitted at Panti Nugroho Hospital, consisting of 175 pre-pathway patients and 175 post-pathway patients. Both groups are homogeneous in terms of clinical characteristics. The results showed that there was a decrease in the average length of stay before and after the implementation of Clinical Pathway (4.02 vs 3.63 days), with the implementation of Clinical Pathway and mortality as the potential factors. The implementation of Clinical Pathway has been proven to reduce drug costs, although not statistically significant, but significantly increased the cost of examinations and total costs ( $p < 0,001$ ).

**Conclusion:** There was significant reduction in the average length of stay after the implementation of Clinical Pathway Non-Hemorrhagic Stroke. However, the average of total cost of care and examination cost were found increased, probably due to the more routine use of Head CT-Scan.

**Keywords:** Clinical Pathway, non-hemorrhagic stroke, length of stay, cost

## ABSTRAK

**Latar Belakang:** Pelayanan kesehatan yang bermutu dan terjangkau merupakan isu yang sangat berkembang saat ini. Pengendalian mutu dan biaya dapat dilakukan salah satunya dengan menggunakan *Clinical Pathway*, namun penelitian tentang efektivitas *Clinical Pathway* masih sangat terbatas.

**Tujuan:** Penelitian ini bertujuan untuk mengukur dampak implementasi *Clinical Pathway* Stroke Non-Hemoragik terhadap lama rawat inap dan tarif perawatan pasien stroke di RS Panti Nugroho Yogyakarta.

**Metode:** Desain penelitian ini adalah *cohort retrospective* dengan 350 data rekam medis pasien stroke yang dirawat di RS Panti Nugroho sebagai subyek penelitian yang memenuhi kriteria inklusi dan eksklusi. Data diambil secara *purposive sampling* dari bulan Oktober 2017 sampai September 2019. Luaran klinis yang diukur adalah lama rawat inap, tarif pemeriksaan penunjang, tarif obat dan total tarif perawatan.

**Hasil:** Penelitian dilakukan pada 350 pasien stroke non-hemoragik serangan pertama yang dirawat di RS Panti Nugroho, terdiri dari 175 pasien *pre-pathway* dan 175 pasien *post-pathway*. Karakteristik klinik kedua kelompok ditemukan tidak berbeda signifikan *pre-post pathway*. Hasil analisis menunjukkan bahwa penurunan rerata lama rawat inap sebelum dan sesudah pemberlakuan *Clinical Pathway* (4,02 vs 3,63 hari), dengan penerapan *Clinical Pathway* dan mortalitas sebagai faktor potensialnya. Pasca pemberlakuan *Clinical Pathway* terjadi penurunan tarif obat meskipun tidak bermakna secara statistik, namun pada tarif pemeriksaan penunjang dan total tarif perawatan ditemukan meningkat secara signifikan ( $p < 0,001$ ).

**Kesimpulan:** Implementasi *Clinical Pathway* Stroke Non-Hemoragik mampu menurunkan rerata lama rawat inap secara signifikan. Rerata tarif pemeriksaan penunjang dan total tarif perawatan ditemukan meningkat setelah penerapan *Clinical Pathway*, kemungkinan besar disebabkan semakin rutinnnya dilakukan pemeriksaan CT-Scan kepala.

**Kata kunci:** *Clinical Pathway*, stroke non hemoragik, lama rawat inap, tarif