

Latar belakang: *Triple diagnostic* merupakan prosedur diagnostik pre-operatif benjolan payudara yang sudah terbukti akurat, namun belum pernah dianalisis di sebagian besar RS di Indonesia termasuk RSUD Soehadi Prijonegoro Sragen. Di sisi lain, masih dilaporkan adanya 37% kasus yang mengalami *diagnostic error*. Kejadian *diagnostic error* dapat mengakibatkan keterlambatan penatalaksanaan benjolan payudara, re-operasi dan peningkatan biaya. Selain itu, efisiensi biaya pada penerapan pemeriksaan diagnostik pre-operatif juga belum pernah dikaji. Sebagian besar kasus benjolan payudara di RSUD Soehadi Prijonegoro Sragen menggunakan sistem pembiayaan JKN. Diduga belum semua kasus benjolan payudara di RSUD Soehadi Prijonegoro Sragen menerapkan *triple diagnostic*.

Tujuan: Penelitian ini bertujuan untuk mengetahui penerapan *triple diagnostic*, faktor yang berpengaruh terhadap penerapan *triple diagnostic*, pengaruh *triple diagnostic* terhadap kejadian *diagnostic error* pada benjolan payudara dan kejadian re-operasi pada kanker payudara, serta faktor lain yang berhubungan dengan *diagnostic error* dan kejadian re-operasi, serta kajian efisiensi biaya diagnostik pre-operatif.

Metode: Studi ini merupakan penelitian deskriptif dan obseravasional analitik potong lintang. Subjek penelitian adalah pasien benjolan payudara di RSUD Soehadi Prijonegoro pada periode 1 Januari 2018 – 31 Desember 2019 yang menjalani operasi dengan metode pengambilan sampel *total sampling*. Data diambil dari rekam medis secara retrospektif dan dianalisis dengan uji *Chi-Square* serta uji T untuk melihat efisiensi rata-rata biaya diagnostik pre-operatif.

Hasil dan Pembahasan: Proporsi penerapan *triple diagnostic* di RSUD Soehadi Prijonegoro masih rendah yaitu 5,8%. Usia di atas 35 tahun dan pembiayaan JKN non PBI meningkatkan penerapan *triple diagnostic* ($p=0,049$ dan $p=0,041$). Penerapan *triple diagnostic* tidak berpengaruh terhadap kejadian *diagnostic error* maupun re-operasi. Sementara itu faktor usia berpengaruh terhadap kejadian *diagnostic error*, sedangkan pada kejadian re-operasi kombinasi pemeriksaan fisik dan FNAB terbukti menurunkan risiko re-operasi ($p<0,05$). Rata-rata biaya operasi pada kelompok yang menjalani kombinasi pemeriksaan fisik dan FNAB lebih rendah dibandingkan kombinasi pemeriksaan fisik dan USG serta *triple diagnostic* sehingga modalitas ini dinilai lebih efisien.

Kesimpulan : Penerapan *triple diagnostic* pada kasus benjolan payudara masih rendah, hanya 5,8% dari keseluruhan kasus benjolan payudara. Penerapan *triple diagnostic* tidak berpengaruh terhadap kejadian *diagnostic error* pada kasus benjolan payudara dan kejadian re-operasi pada kasus kanker payudara. Kombinasi pemeriksaan fisik dan FNAB paling sering diterapkan dan mengurangi kecenderungan terjadinya re-operasi pada kasus kanker payudara sehingga dipandang paling efektif dan efisien.

Kata Kunci: *Triple Diagnostic*, *Diagnostic Error*, Re-operasi, Efisiensi Biaya

THE IMPLEMENTATION OF TRIPLE DIAGNOSTIC METHOD AMONG BREAST LUMP CASES AT SOEHADI PRIJONEGORO SRAGEN PUBLIC HOSPITAL IN CORRELATION WITH PATIENT SAFETY AND COST EFFICIENCY

ABSTRACT

Background: Triple diagnostic is an efficient and accurate breast lump pre-operative procedure. The method never been evaluated in most hospitals in Indonesia including RSUD Soehadi Prijonegoro, Sragen. However, 37% of cases remain reported with diagnostic errors. Diagnostic errors lead to breast lumps delayed management, re-operation and increased costs. In addition, cost efficiency evaluation of pre-operative assessment yet to be performed. Most identified breast lump cases at Soehadi Prijonegoro Sragen Hospital covered by national health insurance financing system. It is suspected that not all cases of breast lumps in RSUD Soehadi Prijonegoro Sragen have applied triple diagnostics.

Objective: This study aims to identify the implementation of triple diagnostic method, influencing factors, the effect of triple diagnostic method toward breast lumps diagnostic errors incidence and the prevalence of breast cancer reoperation as well as confounding factors associated with diagnostic error and reoperation, and pre-operative diagnostics cost efficiency.

Methods: This is a descriptive and observational cross-sectional analytic study. The research participants were patients diagnosed with breast lumps at Soehadi Prijonegoro Hospital period January 1, 2018 - December 31, 2019 who underwent surgery by total sampling method. Data were retrospectively retrieved from medical records and analyzed with Chi-Square and T test to discover the average costs efficiency of pre-operative diagnostic intervention.

Results and Discussion: Proportion of triple diagnostic method implementation in RSUD Soehadi Prijonegoro remain low by 5.8%. Age over 35 years and non-subsidized national health insurance financing increased the triple diagnostic implementation ($p=0.049$ and $p=0.041$). The triple diagnostic implementation did not affect the diagnostic errors incidence or reoperation. Meanwhile, age and clinician factors influenced the incidence of diagnostic errors, while combination of physical examination and FNAB was proven to reduce the risk of reoperation ($p<0.05$). The average surgical operation costs among physical examination and FNAB subjects group were lower than USG and triple diagnostic so that this modality considered more efficient.

Conclusion: The implementation of triple diagnostic method among breast lump cases remains low, account for 5.8% of all cases. Triple diagnostic method provides no effect to the breast lumps diagnostic errors incidence and the incidence of breast cancer reoperation. The combination of physical examination and FNAB frequently applied to reduce breast cancer cases reoperation likelihood and considered as the most effective and efficient method.

Keywords: cost efficiency, diagnostic error, reoperation, triple diagnostic method