

ABSTRAK

Pelayanan kesehatan adalah segala bentuk kegiatan dan serangkaian kegiatan pelayanan yang diberikan secara langsung kepada perseorangan atau masyarakat untuk memelihara dan meningkatkan derajat Kesehatan masyarakat dalam bentuk promotif, preventif, kuratif, rehabilitatif, dan/atau paliatif. Pelayanan kesehatan yang berkualitas penting untuk meningkatkan kesehatan dan kesejahteraan masyarakat secara keseluruhan. Ketersediaan obat tentunya juga termasuk salah satu pelayanan kesehatan. Tidak bisa dibayangkan jika pasien membutuhkan obat ketika diperlukan tetapi ketersediaan tidak tercukupi. Penelitian ini bertujuan untuk mengantisipasi kekurangan stok obat dengan memanfaatkan teknik Data Mining. Metode yang digunakan yaitu teknik asosiasi dengan Algoritma Frequent Pattern Growth. Algoritma ini memiliki tujuh tahapan yaitu menghitung frekuensi item set, menentukan support pada setiap item, membentuk FP-Tree, menentukan conditional pattern base, menentukan conditional FP-Tree, menentukan frequent pattern dan menghitung nilai support dan confidence. Dataset diambil dari riwayat kunjungan pasien pada bulan Maret-Mei 2023 sebanyak 70 kunjungan dan 32 jenis obat yang digunakan di klinik pesantren darul mursyid. Pada penelitian ini diberikan support sebesar 5% dan confidence 20%. Hasil penelitian ini dapat menghasilkan aturan asosiasi sebanyak 9 aturan asosiasi, dengan aturan jika metoclorpamid maka parasetamol dengan support 5.71% dan confidence 57.14%, jika parasetamol maka omegtamin dengan support 8.57% dan confidence 23.08%, jika omegtamin maka parasetamol 8.57% dan confidence 75%, jika cefixim maka citirizine dengan support 5.71% dan confidence 25%, jika citirizine maka cefixim dengan support 5.71% dan confidence 40%, jika amoxicillin maka asam mefenamat dengan support 8.57% dan confidence 40%, jika asam mefenamat maka amoxicillin dengan support 8.57% dan 60%, jika amoxicillin maka parasetamol dengan support 5.71% dan confidence 26.67% dan jika cefixim maka parasetamol dengan support 7.14% dan confidence 31.25%. Pemanfaatan teknik asosiasi dapat disimpulkan bahwasanya algoritma frequent pattern growth dapat digunakan dalam mencari dan menghitung pola asosiasi yang saling berkaitan dan mencari item yang sering muncul.

Kata kunci: Pelayanan Kesehatan, Ketersediaan Obat, Data Mining, Asosiasi, Frequent Pattern Growth

ABSTRACT

Health services are all forms of activities and a series of service activities provided directly to individuals or the community to maintain and improve the level of public health in the form of promotive, preventive, curative, rehabilitative and/or palliative. Quality health services are important for improving the overall health and well-being of society. Availability of medicines is of course also one of the health services. It is unimaginable if patients need medication when needed but its availability is insufficient. This research aims to anticipate drug stock shortages by utilizing Data Mining techniques. The method used is the association technique with the frequent pattern growth algorithm. This algorithm has seven stages, namely calculating the item set frequency, determining support for each item, forming an FP-Tree, determining the conditional pattern base, determining the conditional FP-Tree, determining the frequent pattern and calculating the support and confidence values. The dataset was taken from the history of patient visits in March-May 2023, totaling 70 visits and 32 types of medication used at the Darul Mursyid Islamic boarding school clinic. In this study, support was given at 5% and confidence at 20%. The results of this research can produce 9 association rules, with the rules if metoclorpamide then paracetamol with support 5.71% and confidence 57.14%, if paracetamol then omegtamin with support 8.57% and confidence 23.08%, if omegtamin then paracetamol 8.57% and confidence 75% , if cefixim then citirizine with support 5.71% and confidence 25%, if citirizine then cefixim with support 5.71% and confidence 40%, if amoxcillin then mefenamic acid with support 8.57% and confidence 40%, if mefenamic acid then amoxcillin with support 8.57% and 60%, if amoxicillin then paracetamol with support 5.71% and confidence 26.67% and if cefixim then paracetamol with support 7.14% and confidence 31.25%. The use of association techniques can be concluded that the frequent pattern growth algorithm can be used to search for and calculate interrelated association patterns and search for items that frequently appear.

Keywords: Health Services, Drug Availability, Data Mining, Associations, Frequent Pattern Growth