عنوان مقاله:

Spatial Analysis of Access and Transfer of Emergency (Asthma) Patients to Medical Centers on District 3 of Tehran, Iran

محل انتشار:

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خلاصه مقاله:

The short resuscitation time for patients with asthma is one of the most urgent medical conditions with a high importance. In this study, the geographic information system (GIS) is used to analyze the access and transfer of emergency patients to health care centers (resuscitation, specialized, and health care services) to patients with respiratory problems with moderate and acute symptoms as the statistical sample. METHODS: Identifying the service area of the eligible health centers based on two factors of time and distance, the districts and streets covered by these centers were identified. Then, by spatial analysis, the appropriate service area available to the medical emergency centers and patients of this category was determined to facilitate their access to these areas. In addition, by calculating the time and distance cost matrix of the location of the patients with asthma attack relative to the treatment centers, the best treatment center for patient transfer was identified. After summarizing the appropriate model to calculate the service area for these patients, the spatial and descriptive data were collected in the study area (District 3 of Tehran, Iran) and their thematic maps were produced. Then, the time and distance matrix of transfer of patients was calculated for the spatial analysis and facilitation of their access to treatment centers related to respiratory diseases based on the two above factors. FINDINGS: Geospatial information system (GIS) and analysis of network access to appropriate respiratory care providers could save time and costs considerably. CONCLUSION: Establishment of time and location management systems for ambulances and identification of specific types of diseases at the moment of contact with the emergency departments of the medical care units can also play an .important role in the rapid transfer of the patients to these centers

کلمات کلیدی:

Respiratory Diseases, Asthma, Geospatial Information System, Spatial Network Analysis, Respiratory Diseases, Asthma, Geospatial Information System, Spatial Network Analysis