

## **ITERATIVE ALGORITHM FOR EXTRACTION AND DATA VISUALIZATION OF HL7 DATA**

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### **ABSTRACT**

Health care has become one of the most important services. Hospitals, physicians, insurers, and managed-care firms are networking, merging and forming integrated organizations to finance and deliver health care. Hospitals, doctors, and other healthcare centers around the world require the ability to send and receive healthcare data, including patient information and various lab reports means that vast amounts of healthcare information are exchanged on a daily basis. However medical data can be extremely complicated due to the abundance of clinical terminology, as well as the structural complexity in the formation of the presented information

The objective of the present study is to extract useful information from the medical images stored in HL7 messages. In order to achieve this objective we first extracted images from HL7 meta data and messages and its base by using JAVA followed by data clustering using Multiple clustering algorithm which includes voltage , weak component and new proposed clustering and finally visualization of the data by creating graph diagrams based on graph theory. The results shows that based on certain criteria the dense connections in graphs can be reduced without the loss of information and in fact increased the visibility leading to production usage of information without clutter and noise in the presentation.

**KEYWORDS:** Health Care, Messages, HL7, Clustering