Step 0 (Initialization):
D = the set of the documents to be clustered
D_m = the set of documents in D indexed with a given MeSH term m (for each m in M)
N_m = the number of documents in D indexed with a given MeSH term m (for each m in M)
M = the set of MeSH terms collected from all documents in D (after removing the terms that are given on a stoplist of the top 20 most frequent in MEDLINE, and removing each term m for which the relative document frequency $|D_m|/|D|$ is > 1/3)
$i = 0$ (cluster number)

Step 1 (Iterations):
WHILE ($i = i + 1 < 15$ and $M \neq \emptyset$) {
    $L_i = m$ in M: $N_m \geq N_n$ for all n in M (identifies the label for the i-th cluster)
    $C_i = D_m$ (assigns a set of papers to the i-th cluster C_i)
    $D = D - D_m$ (removes the papers in the i-th cluster from being considered for the potential "Miscellaneous" cluster, and from contributing to the counts of the remaining MeSH terms)
    N_n = number of remaining documents in D with a given MeSH term n (for each n in M)
    $M = M - m$ and its children* (removes the i-th cluster label and its children from further consideration)
}
IF ($D \neq \emptyset$) {
    $i = i + 1$
    L_i = "Miscellaneous"
    $C_i = D$
}
$n = i$

Step 2 (Output Clusters): List of cluster labels Li's each with a corresponding set of documents C_i's for $i = 1, 2, \ldots, n$, displayed in order of decreasing size of the document clusters.

*Given two MeSH terms m and n, m is considered a child of n if m occurs below n in the MeSH hierarchy.

Notice that the counts (N_m's) are reduced during the execution of the WHILE loop, whereas the document sets (D_m's) stay the same. Thus, each document may be assigned to multiple clusters because cluster labels are chosen based on the counts (N_m's) and the clusters are based on document sets (D_m's),.