

LDA2Net: Digging under the surface of COVID-19 topics in literature

Topic 104 companion sheet

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This file contains the following supplementary information for Topic 104 of the manuscript “*LDA2Net: Digging under the surface of COVID-19 topics in scientific literature*”:

- Human label and automatic n-gram label proposals (Table 1)
- Summary measures (Table 2)
- Network of top 25 bigrams (Figure 1)
- Wordclouds of top 25 words by node relevance measure (Figure 2)
- Wordclouds of top 25 bigrams by edge relevance measure (Figure 3)
- Filtered (0.99 percentile) topic network (Figure 4)

Table 1: Human and automatic label proposals. Automatic label candidate for largest word community of the topic. In parenthesis: absolute frequency of the walk out of a sample of size 1000.

Human label	2-gram label	3-gram label	4-gram label
treatment of cardiovascular complications	stroke->acute (9.1%)	stroke->acute->severe (4.8%)	ischemic->thrombotic->outcomes->complications (1.7%)

Here follows the set of topic-specific measures that have been used to classify the topic and to analyse its structural properties (see manuscript for details):

Table 2: Summary measures

	JSD	Mean propensity	Variance propensity	Modularity	Barrat Clustering Coeff.
value	0.558280	0.007754	0.000498	0.043585	0.609549
rank	19	34	91	69	99

Based on the aforementioned measures, Topic 104 has been classified as a SPECIALIZED topic.



A word cloud of medical terms related to thromboembolism. The most prominent word is 'patients'. Other significant words include 'stroke', 'complications', 'coagulation', 'thromboembolism', 'thrombosis', 'bleeding', 'treatment', 'coagulopathy', 'arterial', 'anticoagulation', 'acute', 'vascular', 'PE', 'events', 'VTE', 'platelet', 'venous', 'clinical', 'ischemic', 'embolism', 'thromboembolic', 'state', 'heparin', and 'therapeutic'. The words are arranged in a circular pattern, with 'patients' at the center.

A word cloud of medical terms related to stroke and thromboembolism. The most prominent words are 'stroke', 'patients', 'thromboembolic', 'thrombotic', 'vascular', 'events', 'severe', 'treatment', 'bleeding', 'coagulation', 'anticoagulation', 'complications', 'acute', 'venous', 'arterial', 'ischemic', 'hospitalized', 'clinical', 'therapy', 'risk', 'without', 'PE', 'therapeutic', 'thromboembolism', and 'VTE'. The words are arranged in a circular pattern, with 'stroke' and 'patients' being the largest and most central.

stroke

patients

arterial acute severe complications PE thromboembolism thrombotic VTE anticoagulation vascular

high treatment events

hospitalized risk therapy ischemic clinical bleeding without

thromboembolic coagulation

A word cloud of terms related to the study. The most prominent words are 'patients', 'clinical', 'events', 'thromboembolism', 'factor', 'vascular', 'complications', 'treatment', 'thrombotic', 'ischemic', 'stroke', 'acute', 'without', 'high', 'severe', 'present', 'hospitalized', 'venous', 'formation', 'underwent', 'outcomes', 'including', 'PE', 'VTE', and 'presented'. The words are arranged in a circular pattern, with 'patients' and 'clinical' being the largest and most central.

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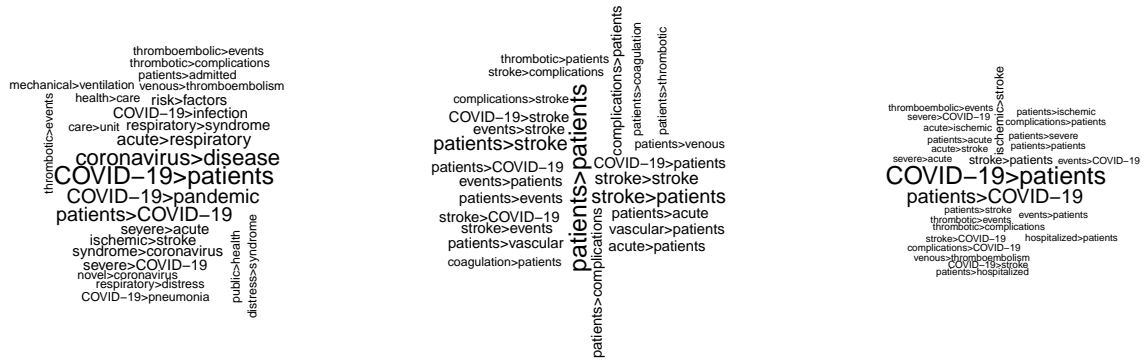


Figure 3: Top 25 bigrams (i.e., edges) by measure.

