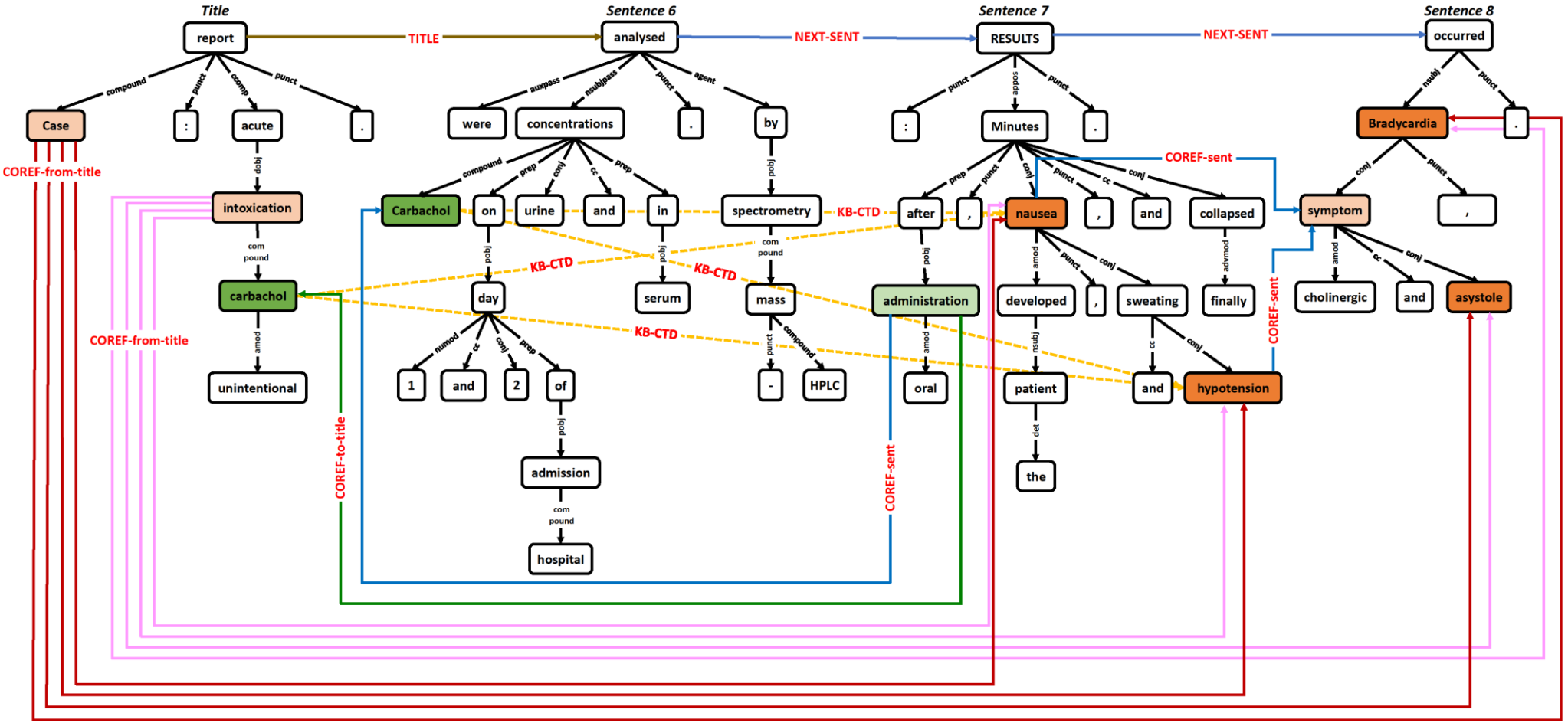
# Appendix A.

## Example of a document sub-graph

**ORIGINAL ABSTRACT: PMID 16740173**
*(In which, example sentences are highlighted in bold (#6-7-8))*

*<TITLE>*
**Case report: acute unintentional carbachol intoxication.**
*<ABSTRACT>*
INTRODUCTION: Intoxications with carbachol, a muscarinic cholinergic receptor agonist are rare. We report an interesting case investigating a (near) fatal poisoning. METHODS: The son of an 84-year-old male discovered a newspaper report stating clinical success with plant extracts in Alzheimer's disease. The mode of action was said to be comparable to that of the synthetic compound 'carbamylcholin'; that is, carbachol. He bought 25 g of carbachol as pure substance in a pharmacy, and the father was administered 400 to 500 mg. **Carbachol concentrations in serum and urine on day 1 and 2 of hospital admission were analysed by HPLC-mass spectrometry. RESULTS: Minutes after oral administration, the patient developed nausea, sweating and hypotension, and finally collapsed. Bradycardia, cholinergic symptoms and asystole occurred.** Initial cardiopulmonary resuscitation and immediate treatment with adrenaline (epinephrine), atropine and furosemide was successful. On hospital admission, blood pressure of the intubated, bradyarrhythmic patient was 100/65 mmHg. Further signs were hyperhidrosis, hypersalivation, bronchorrhoea, and severe miosis; the electrocardiographic finding was atrio-ventricular dissociation. High doses of atropine (up to 50 mg per 24 hours), adrenalineand dopamine were necessary. The patient was extubated 1 week later. However, increased dyspnoea and bronchospasmnecessitated reintubation. Respiratory insufficiency was further worsened by Proteus mirabilis infection and severe bronchoconstriction. One week later, the patient was again extubated and 3 days later was transferred to a peripheral ward. On the next day he died, probably as a result of heart failure. Serum samples from the first and second days contained 3.6 and 1.9 mg/l carbachol, respectively. The corresponding urine concentrations amounted to 374 and 554 mg/l. CONCLUSION: This case started with a media report in a popular newspaper, initiated by published, peer-reviewed research on herbals, and involved human failure in a case history, medical examination and clinical treatment. For the first time, an analytical method for the determination of carbachol in plasma and urine has been developed. The analysed carbachol concentration exceeded the supposed serum level resulting from a therapeutic dose by a factor of 130 to 260. Especially in old patients, intensivists should consider intoxications (with cholinergics) as a cause of acute cardiovascular failure.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