Table 1 Dynamics of TGF-β₁ level

| Parameter       | Visit 1         | Visit 2         | Control       | p            |
|-----------------|-----------------|-----------------|---------------|--------------|
| TGF-β₁ (pg/ml)  | 3664.8 [3293.7–5199.3] | 6250.0 [4717.6–14581.9] | 2620.5 [2267.7–2976.2] | p₁v₂ = 0.003  |
|                 |                 |                 |               | p₁v₁ = 0.000  |
|                 |                 |                 |               | p₂v₁ = 0.001  |

Conclusion: Under the influence of basic therapy, which includes inhalation corticosteroids, TGF-β₁ levels were significantly increased. So, serum TGF-β₁ level may be used as an additional criterion for the disease severity, but not as an indicator of treatment effectiveness.

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THE ROLE OF PROTEIN C IN HOSPITALIZED PATIENTS WITH COMMUNITY-ACQUIRED PNEUMONIA

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There are limited data on the role of protein C in patients with community-acquired pneumonia (CAP). The aim was to estimate the role of serum level protein C (PC) on different phases of treatment in patients with CAP and to assess its value in lung thrombosis prediction.

Materials and Methods. The main group consisted of 75 patients with moderate to severe CAP. Depending on the severity, all the patients of the main group were divided into 2 subgroups: subgroup 1 – 41 patients with moderate CAP, subgroup 2 – 34 patients with severe CAP. Control group consisted of 16 healthy persons.

General clinical analyses, determination of PC were performed at admission before starting of antibacterial treatment (visit 1) and after clinical stability on 7th–10th day after hospitalization (visit 2). Statistics included ROC-analysis.

Results. Levels of PC in patients with moderate to severe CAP, Me [25-75%]

|               | Main group       | Control group   |
|---------------|------------------|-----------------|
|               | subgroup 1       | subgroup 2      |               |
| Visit 1       | 80.0 [68.0–95.0] #^ | 70.0 [63.0–95.0] #^ | 95.0 [83.0–105.0]     |
| Visit 2       | 101.5 [88.5–115.0] ^ | 106.5 [80.0–135.0] ^ |

Notes: * – p < 0.05 between subgroups on Mann-Witney;
# – p < 0.05 with control group on Mann-Whitney;
^ – p < 0.05 between visits on Wilcoxon.

For establishing the diagnostic value of PC we allocated 11 patients with lung vessel thrombosis (in 6 patients – on chest CT and in 5 patients – on autopsy).
Conclusions:
1) both patients with moderate and severe CAP are characterized by decreasing of PC, which is the internal anticoagulant, therefore this process maybe associated with increased risk of lung thrombosis in hospitalized patients with pneumonia;
2) PC level is very useful parameter for diagnosing the lung thrombosis which sensitivity is 66.7%, specificity is 89.3%, AUC – 0.836, p<0.001;
3) normalization of PC levels occurs on the 7th–10th day of antibacterial treatment;
4) serum PC level and its dynamic changes could be like a useful marker for prescribing of anticoagulant treatment in hospitalized patients with CAP.

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FIBRINOGEN LEVEL IN COPD PATIENTS DEPENDING ON THE PHASE OF THE DISEASE
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Although fibrinogen levels are increased in COPD, it is not certain whether they are associated with cause of COPD exacerbation. Aim: to assess the microbiological spectrum in patients with AECOPD in our region; to analyze the fibrinogen as the bacterial process marker in this category of patients.

Material and methods: 25 patients with Anthonisen I type AECOPD (21 male) aged from 37 to 78 (mean age 58.5 ± 2.1 years) composed the main group; 11 patients (10 male) with stable phase of COPD (mean age 57.6 ± 1.8 years) – comparison (com) gr.; 11 (8 male) health people (mean age 61.3 ± 1.7 years) – control (con) gr. Main group was divided into 2 parts: gr. 1 – patients with identified pathogens; gr. 2 – patients with unidentified pathogens. Spirometry, microbiological investigation of sputum and plasma fibrinogen level were obtained.

Results: etiological pathogens were isolated in 18 (72.0%) patients. It was H.influenzae – 12 (54.5%); S. pneumonia – 5 (22.7%); H. parainfluenzae – 2 (9.1%); M. catarrhalis – 2 (9.1%); Ps.aeruginosa – 1 (4.5%). Fibrinogen levels are performed in tabl. 1.

| Groups                  | Fibrinogen level, g/L (M ± m) | p  |
|-------------------------|-------------------------------|----|
| Group 1 (n = 18)        | 4.21 ± 0.19                   | p 1-2 < 0.005 |
| Group 2 (n = 7)         | 3.6 ± 0.13                    | p2-com > 0.05 |
| Comparison group (n = 11)| 3.04 ± 0.19                  | p1-com < 0.01 |
| Control group (n = 11)  | 2.85 ± 0.17                   | pcon-com > 0.05 |

Conclusion: our study demonstrated that fibrinogen is the marker of pathological process in COPD patients. Fibrinogen level correlates with severity of exacerbation and may indicate the bacterial etiology of AECOPD.