



THE USEFULNESS OF POINT-OF-CARE-TESTING FOR C-REACTIVE PROTEIN IN LOWER RESPIRATORY TRACT INFECTION / ACUTE COUGH

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Background

Respiratory tract infections and acute cough are too frequently treated with antibiotics. Point of care test (POCT) for C-reactive protein (CRP) has in one study been shown to significantly reduce antibiotic prescribing for lower respiratory tract infections (LRTI) without compromising recovery, and more evidence is needed.

Aim: The aim of the study was to evaluate the effect of using the CRP test in general practice patients with LRTI on the prescription of antibiotics, referral to radiography, and the outcome of the patients.

Methods

Open randomised clinical trial; patients with LRTI/acute cough were included. CRP-test was carried out before treatment was decided in the intervention group, with the use of Afinion test system (Axis Shield). Frequency of prescribing antibiotics and referral to radiography were main outcome measures.



Results

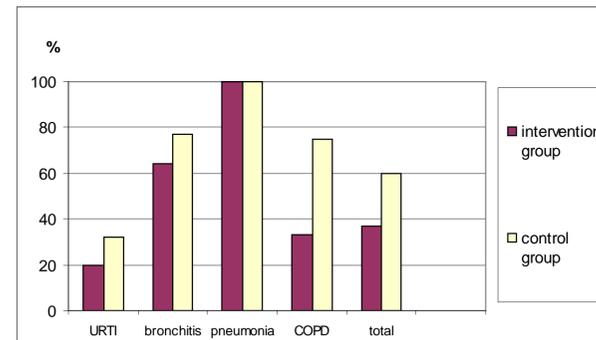


Figure #1 Frequency (%) of antibiotic prescribing by diagnosis in the intervention and control groups

Altogether, 179 patients were included, 101 in the intervention group tested by POCT for CRP and 78 in the control group. No significant difference in gender, co-morbidity, symptoms and chest findings was found between intervention and the control groups. In the intervention group antibiotics prescribing rate was significantly lower, 37.6%, than in the control group, 60.2%, ($p=0.005$). Referral to chest X-ray examination was also significantly lower in the intervention group, 55.4%, than in the control group, 76% ($p<0.01$). Two weeks after start of treatment the recovery rate (% fully or almost recovered) was 92% and 93% in the intervention and the control group, respectively.

Results

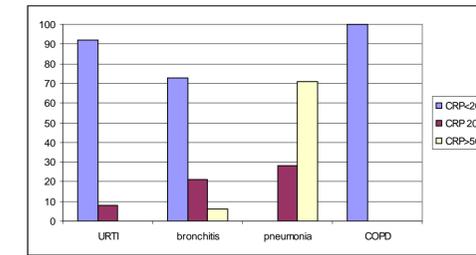


Figure #2 Frequency (%) of CRP value by diagnosis in the intervention group

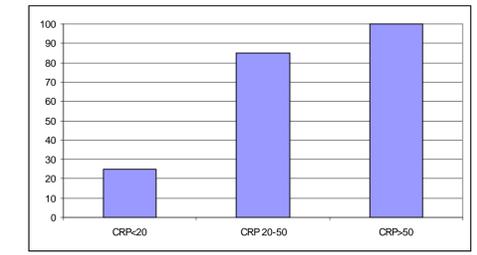


Figure #3 Frequency (%) of prescribing antibiotics by CRP value in the intervention group

Conclusions

CRP testing may reduce unnecessary antibiotic prescribing and referral to radiography in patients with LRTI or acute cough without compromising recovery.

References

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4. Steurer J, et al. A decision aid to rule out pneumonia and reduce unnecessary prescriptions of antibiotics in primary care patients with cough and fever. *BMC Medicine* 2011, 9:56