POSTER ABSTRACTS

239. A Cluster-Randomized Controlled Trial of Trained Pharmacists and Infectious Disease Clinical Fellows for Approval of Restricted Antibiotics in Hospitalized Medical Patients at Siriraj Hospital

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Background. Siriraj Hospital has implemented post-authorization of target antibiotics (piperacillin/tazobactam, meropenem, imipenem/cilastatin and doripenem) for nearly 10 years. Currently, antibiotic approval is implemented by ID clinical fellows.

Methods. During February – September 2013, we conducted a cluster randomized controlled trial in 6 general medical wards at Siriraj hospital to compare the impact of antibiotics approval by ID clinical fellows vs trained general pharmacists in terms of clinical outcomes, microbiological outcomes and antibiotic consumption and expenditure. Three wards were randomly assigned to the intervention group (the pharmacist group) while the other three wards were assigned to the control group (the fellow group). The target antibiotics can be prescribed by responsible physicians during the first 72 hr, after that an approval from the fellows or the pharmacists is required.

Results. There were 806 enrolled patients. The preliminary analysis included 161 patients with 178 prescriptions in the pharmacist group and 168 patients with 181 prescriptions in the fellow group. Baseline characteristics of both groups were comparable. The equivalence can only be proved in the superimposed infection outcome (Δ = -0.44% [-4.83 to 5.71]) but the non-inferiority of the pharmacist group could be assumed in the ID death (Δ = -3.68% [-10.65 to 3.3]), favorable clinical outcome (Δ = 3.53% [-6.75 to 13.82]) and favorable microbiological outcome (Δ = 7.67% [-1.34 to 16.67]). The defined daily dose (DDD) of target antibiotics per prescription was significantly higher in the pharmacist group (11.76 ± 11.96 vs 10.16 ± 9.50; P = 0.02). However, there was no difference in the DDD of all antibiotics per prescription (32.52 ± 38.27 vs 30.09 ± 39.62; P = 0.36) and cost of target antibiotics or all antibiotics per prescription.

Conclusion. Although the patients who received antibiotic approval by the pharmacists had significantly higher consumption of target antibiotics, there was no significant difference in antibiotic expenditure and important treatment outcomes. Therefore, the trained pharmacists could be an alternative to ID specialists for antibiotic approval in the resource limited setting. (ClinicalTrials.gov number, NCT 01797133)

Disclosures. **All authors:** No reported disclosures.

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