Attributable Cost and Extra Length of Stay of Surgical Site Infection at a Ghanaian Teaching Hospital

Ama Fenny, Legon University of Ghana

Background: Limited information is available on the financial impact of surgical site infections (SSI) in Ghana. To calculate the cost of SSIs in a surgical department, a prospective case-control study was undertaken at the Korle Bu Teaching Hospital (KBTH) in Ghana.

Methods: We studied 446 adults undergoing surgery from the surgical department. In all, 41 patients with SSI and 41 control patients without SSI were matched by type of surgery, wound class, ASA, sex and age. The direct and indirect costs to patients was obtained from patients and their carers on daily basis. The cost of drugs was confirmed with the pharmacy at the department.

Results: Prevalence rate for SSI was found to be 10.2% of the total 446 cases sampled between June and August 2017. On average patients with SSI who undertook appendix surgery paid approximately GHC1,210 ($256) more than those without SSI in the same category. The least difference was recorded amongst patients who had thyroid surgery, a difference of GHC62 ($13). The results show that for all surgical procedures, SSI patients report excess length of stay. The extra days range from 1 day for limb amputation to 16 extra days for rectal surgery. However, the regression estimation showed that ALOS is not significantly influenced by SSI status although ALOS partly account for variations in total cost borne by SSI and non-SSI patients.

Conclusions: In this study, patients with SSI experienced significant prolongation of hospitalisation and increased use of health care costs. In many cases, the indirect costs were much higher than direct costs. These findings support the need to implement preventative interventions for patients hospitalised for various surgical procedures at the Korle Bu Teaching Hospital.