

## O0480 **Direct costs of a contact isolation day: a prospective cost analysis at a Swiss university hospital**

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**Background:** Contact precautions (CPs) belong to basic infection control practices to prevent transmission of pathogens. As little is known about the actual costs of CPs, we aimed to calculate the daily direct costs of CPs during a non-outbreak period.

**Materials/methods:** In 2017, we conducted a prospective study to evaluate direct costs of CPs at the University Hospital Basel. We randomly chose ten patients with ongoing CPs who were hospitalized on any of our medical/surgical acute care wards for subsequent on-site observation of isolation activities (for 24 consecutive hours per patient). From a hospital's perspective, direct costs were calculated as additional costs, which were directly attributable to CPs, i.e. costs of additional material use, labor, and all direct efforts relating to CPs.

**Results:** Per patient-day on a medical (n=4 patients) or surgical acute care ward (n=6 patients), the mean direct costs of CPs were \$158.9 (95% confidence interval [CI], \$124.9–\$192.8) with the average extra cost differing significantly across cost categories, i.e. isolation materials (mean, \$43.1; 95% CI, \$33.8–\$52.4), cleaning/disinfection materials (mean, \$5.3; 95% CI, \$4.0–\$6.6), extra workload for all hospital staff categories (mean, \$88.8; 95% CI, \$67.7–\$110.0), and one-off costs (median, \$11.9; interquartile range, \$4.4–\$16.7) ( $P < .001$ ).

**Conclusions:** In this prospective cost analysis, mean direct costs of CPs were \$158.9 per patient-day — accounting for costs of additional materials use, extra workload and one-off isolation activities; this is an advanced estimate of direct isolation activities that substantiates additional costs of CPs for prevention of multi-drug resistant organism transmission.