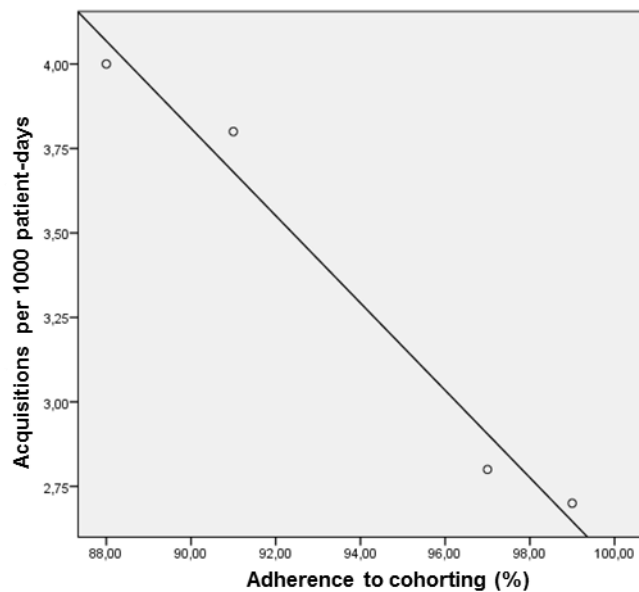


## Appendix B - Regression analyses

Exploratory regression analyses were undertaken, relating the number of acquisitions per 1,000 patient-days to characteristics of adherence to the study protocol and patient characteristics as described in Hayden et al.<sup>24</sup> Adherence to collection of admission swabs, the every-other-week surveillance swabs, hand hygiene, the quantity of CHG cloths ordered per patient per month, the percentage of single rooms in the facility, the average number of roommates, or patient related variables (length of stay, age, gender) were not significantly associated with the number of acquisitions, while adherence to cohorting (percentage of KPC-positive patients on cohort floors or in single rooms) was (Figure S2).



**Figure S2.** Regression analyses. Association between adherence to cohorting and the number of acquisitions per 1,000 patient-days.

Next, weighted least square regression analyses were done, taking into account the spread around the estimate of the number of acquisitions. The inverse of the variance was taken as the weighing factor. The  $R^2$  of the model was high (0.974) and significant ( $p = 0.013$ ).

The two LTACHs with the highest percentage of KPC-positive patients on cohort floors or in single rooms were indeed LTACHs B and D. This strengthens our hypothesis that the use of a pure cohort or single rooms for KPC-positive patients in LTACHs seems to limit transmission compared to use of a mixed cohort. However, in this exploratory

analysis no confounding factors (such as differences between LTACHs in case mix or hand hygiene) were taken into account and thus no firm conclusion can be drawn.