

P1618

Poster Session VI

Increasing hand hygiene: new and old perspectives

A PROJECT TO IMPROVE HAND HYGIENE COMPLIANCE

A. Pan¹, L. Galli², R. Canino², G. Maghini², A. Grandi², A. Grandi², A. Zoncada¹, S. Lorenzotti¹, N. Poli³, C. Rossi⁴

¹Infectious and Tropical Diseases, Istituti Ospitalieri di Cremona, Cremona, Italy ; ²Medical Direction, Istituti Ospitalieri di Cremona, Cremona, Italy ; ³Nurse Direction, Istituti Ospitalieri di Cremona, Cremona, Italy ; ⁴General Direction, Istituti Ospitalieri di Cremona, Cremona, Italy

Objectives

Despite earlier interventions, hand hygiene (HH) compliance observed at the hospital of Cremona, Italy in 2012 was 37%. An intervention was performed to improve HH compliance within a regional program to reduce health-care associated infections through an extra-budget funding.

Methods

Compulsory plenary sessions on HH and on have been performed for all health-care workers (HCW) between April and July 2013. HH lessons focussed on HH indications, technique and on multi-drug-resistant organism control. At the end of each lesson a 3 minutes scene where cocoa was used to show the ease of bacteria transmission was performed. HH knowledge was measured with a modified World Health Organization (WHO) questionnaire. HH compliance was measured utilizing the WHO methodology before and after the intervention. In wards with a HH compliance <65% extra ward HH educational session were performed from September 2013 onwards. Alcohol hand rub solution (AHRs) use (L/1000 patient days) was calculated. Hospital acquired *Clostridium difficile* associated diarrhoea (CDAD) and methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia monthly rates were calculated. Data were periodically fed back to the wards.

Chi square test was performed to compare data before and after the intervention.

Results

A total of 15 plenary sessions on HH have been organized between April and July 2013. Other 9 short education sessions in single wards or services have been performed between September and December 2013. One thousand and 908 HCW participated to the lessons, representing, 78% of the total. A baseline questionnaire on HH was administered to all participating HCW: the overall percentage of correct answers was 65%.

Compliance with hand hygiene increased from 65% at baseline (2254/3454 opportunities) to 91% in the evaluation phase (2704/2984 opportunities). Adherence in different wards and services varied between 17 and 100% at baseline and between 71 and 100% during phase 2. A significant difference ($p < 0.001$) was observed for evaluated parameters.

Indicator	Parameter	Baseline value	Post-intervention value
HH knowledge score	% of the maximal score	65	Programmed for 2014
Participation of the HCW to presentations	N of participants/total number of HCW	68%	78%
HH compliance	N. of HH/of HH opportunities	65%	91%
Alcohol hand rub solution consumption	L/1,000 patient days	9.1	15.1
MRSA bacteremia rate	Nosocomial bacteremias /10,000 patient days	2.26	1.30
<i>Clostridium difficile</i> rate	Nosocomial infections /10,000 patient days	5.97	4.29

Conclusion

A global hospital intervention on HH using the WHO strategy was associated with a significant increase in HH compliance, AHRs consumption and a significant decrease in MRSA bacteremia and CDAD incidence.