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P1019 Infection Risk Scan (IRIS) performed in a Dutch and US hospital: standardization of guidelines and practices is needed to compare the quality of infection control programmes

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Background: The infection risk scan (IRIS), was developed to provide insight into the quality of an infection prevention program by investigating process and outcome parameters. The results are visualized in an easy-to-read plot, using traffic light color codes, providing feedback to healthcare workers (HCW). The objective of this abstract t is to determine applicability of the IRIS in a hospital in the United States (US) and the Netherlands.

Materials/methods: Multiple cross-sectional measurements were performed in both hospitals. Variables included hand hygiene compliance, environmental contamination using ATP measurements, shortcomings in infection control preconditions, personal hygiene of healthcare workers (HCW), appropriate use of indwelling medical devices and appropriate use of antimicrobials. Results were compared to local guidelines and guidelines of the comparator hospital.

Results: The figure shows the IRIS with both guidelines as a reference (black and dotted lines represent Dutch and US guidelines, respectively). When comparing the results from the US hospital with the Dutch local guidelines and vice versa, different figures are obtained. Most striking differences involved the choice of antimicrobial therapy. The narrow spectrum antimicrobials used in the Netherlands were considered inappropriate (i.e., too narrow) based on the US guidelines, while broad-spectrum antimicrobials used in the US hospital were considered too broad by the Dutch guidelines. There were also remarkable differences in levels of environmental contamination (i.e., higher level of contamination found in the Dutch hospital) and personal hygiene of HCWs (i.e., no jewelry worn in the Dutch hospital in accordance with national guidelines).

Conclusions: The standards and guidelines in the two hospitals showed substantial differences which makes it impossible to compare the level of quality of infection control and antimicrobial use in the two hospitals in different countries with different national guidelines. More evidence-based standardization of guidelines around the globe is needed to allow international comparisons of the standard of care.

Preliminary data presented at SHEA conference 2017

Figure: IRIS improvement plots from Dutch and US hospital