

## Selfishness among healthcare workers and nosocomial infections: a causal relationship?

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Hand hygiene remains the single most important measure that can be undertaken by healthcare workers to prevent nosocomial infections. It has been 167 years since the pioneering study by Semmelweis proved it effective<sup>1</sup>, and with the recent spread of multidrug-resistant bacteria in hospitals, hand hygiene is now more important than ever<sup>2</sup>. Despite being simple, effective, safe, and cheap, the worldwide compliance of healthcare workers to proper hand hygiene is typically below 50%, and it is estimated that 50-70% of nosocomial infections are transmitted on the hands of healthcare workers<sup>3</sup>.

In the literature, innumerable reasons have been proposed to explain this fact, with a consensus that causes in the clinical setting are lack of resources, training, or supervision. However, even when dealing with highly skilled healthcare workers working in high-resource hospitals, full compliance with hand hygiene procedures has never been achieved<sup>3</sup>. Thus, we believe that, besides lack of resources and training, a low level of commitment to patient wellbeing is a major cause of low compliance.

When considering this hypothesis, it is important to analyze individual compliance with each of the 5 moments proposed by the World Health Organization (WHO) as critical points in hand hygiene protocols<sup>3</sup>. These moments are: 1) before touching a patient, 2) before aseptic/clean procedure, 3) after body fluid exposure, 4) after touching a patient, and 5) after touching the patient's surroundings. When the references cited by *WHO Guidelines on Hand Hygiene in Health Care* are considered, and compliance analyzed at the pre- and post-care points, compliance at the post-care points is greater than compliance at the pre-care in 10 (83.3%) of the 12 studies cited<sup>3</sup>.

As well, the general lack of commitment to patient wellbeing commonly observed in hospitals is supported by the compliance with different isolation precautions recommended by the Centers for Disease Control and Prevention (CDC)<sup>4</sup>. While compliance with contact precautions usually falls below 30%<sup>5</sup>, compliance with respiratory precautions in our hospital is almost 100% (data not published). We believe that the main explanation for this observation is the perception among healthcare workers

that tuberculosis and meningococcal meningitis pose a real risk to themselves<sup>6</sup>, while infections caused by multidrug-resistant pathogens, such as *Klebsiella pneumoniae*, *Pseudomonas aeruginosa*, or *Acinetobacter baumannii*, typically spread to only the hospitalized patients<sup>7</sup>.

If we are correct, infection control in hospitals must include efforts to motivate a strong commitment from all healthcare workers to the main objective of their work: promoting the patient's health. In the past, this has been partially accomplished by multimodal hand hygiene campaigns, which have tried to improve compliance through behavioral science methods, including motivational lectures and posters<sup>3,8</sup>. In our hospital, we have used a technique of motivating healthcare workers by asking them to put themselves in the place of the patient, and consider how they would like to be cared for if they were the patient. This technique may be easily used during clinical rounds and lectures, or as a wall reminder, as shown in **Figure 1**. When this technique is successful, a marked change in behavior is observed among the target healthcare workers, as they realize that someday it may be their turn to be the patient. Thus, we should all ask ourselves: am I caring for my patients as I would want to be cared for?

It could be you in this bed...



...so, give the patients the same care you would like to have, perform hand hygiene before touching them!



**FIGURE 1 - Wall reminder promoting hand hygiene procedure.**

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## CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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