

How Nursing Students Can Advocate and Educate Healthcare Personnel About
Environmentally Sound Contact Precaution Practices

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As a fledgling nursing student at a local hospital, I dutifully donned my yellow gown and gloves before entering a room labeled “contact precautions,” as I had been instructed to do by my clinical instructor. Upon entering, I conversed with the patient, did not touch her, and as I left the room to get her some juice, I added my attire to a trashcan already overflowing with discarded gowns and gloves. Uncomfortable with what I perceived as wastefulness, I nevertheless donned a gown every time I entered the room for the rest of my 12 hour shift – meaning that I alone discarded a total of 32 gowns and pairs of gloves that day. What’s a nursing student to do?

The Center for Disease Control and Prevention recommends contact precautions to prevent transmission of certain multi-drug resistant organisms (MDROs) deemed clinically significant (Center for Disease Control and Prevention (CDC), 2006). Contact precautions consist of assigning patients colonized by MDROs to a single room (an “MDRO room”) and donning gloves and gowns before entering the room and discarding them upon exit (CDC, 2006). Surprisingly, the efficacy of donning gloves and gowns and subsequently discarding them, which is extremely costly, is relatively unknown. In fact, there were no studies with the last five years studying the impact of solely donning gloves and gowns on MDRO infection rates.

Despite inclusion in numerous *multi-faceted* infection control programs, direct evidence that gowns and gloves decrease MDRO transmission in healthcare facilities is not convincing (Henderson, 2006). Specifically, Henderson’s systemic review of recent

available studies failed to identify even one study that evaluated the efficacy of *solely* donning gloves and gowns.¹

However, one prior study suggested that donning gloves and gowns may not significantly impact transmission rates. Cosseron-Zerbib, et al. (1998) studied the efficacy of methycillin-resistant *Staphylococcus aureus* (MRSA) infection control programs in a pediatric intensive care unit from 1992 through 1995. The infection control program was simple – MRSA colonized patients were identified and isolated and health care personnel were provided additional reminders to perform frequent hand hygiene (pp. 227-28). However, personnel were not required to don gloves and gowns. Nevertheless, MRSA infection rates decreased significantly from the pre-program period to the infection control program period – with fifty new MRSA infections recorded in the preprogram period (1992-1993) to only four new MRSA infections in the program period (1993-1994). Unfortunately, the study was not compared to possible decreases in infection rates if gowns and gloves had been worn. However, given the low incidence of infection (only four new cases in a year as opposed to 50) the data suggests that a simple infection control program emphasizing isolation and handwashing may be considerably effective at preventing transmission of MDROs.

Lack of knowledge as to institutional policies regarding contact precautions may be compounding the wastefulness. In solely anecdotal experience, most nurses and

¹ In a 2004 literature review of articles evaluating contact and isolation precautions, Cooper, et al. (2004), found that “no well designed studies exist that allow the role of isolation measures alone to be assessed.” Of the 46 studies reviewed, only 19 used the contact precautions discussed above and all but one of the studies evaluated multiple infection control interventions. While infection control measures on the whole appeared to decrease MRSA transmission, the report also noted that in 45 of the 46 studies multiple infection control measures were used.

other health care professionals I have asked believe that institutional policies require them to don gloves and gowns whenever they enter a room. However, the contact precaution policies that I have read, as well as the CDC's recommendations, require health care personnel to don gowns and gloves only when anticipating some degree of contact with the patient.

The daunting task of advocating for change within an organization, especially change that benefits intangibles such as the environment, does not come easily and could be particularly difficult for nursing students who are new to an organization. However, because of their "newcomer status," nursing students are particularly primed to educate themselves as well as other health care personnel about instituting contact precautions in an environmentally sound manner, particularly the donning of gloves and gowns – a practice which could grow to a much needed further exploration of the rationale behind donning gloves and gowns. Accordingly, nursing students can take the following measures to reduce wasteful practices with respect to contact precautions and potentially generate research that will provide evidence for continuing or discontinuing the practice:

- Know your institution's policy with respect to contact precautions. As stated, many institutions only require gloves and gowns when anticipating contact or substantial contact with the patient.
- Share the policy with others when they are donning gloves and gowns. This can be done unobtrusively by noting that the policy requires gloves and gowns only when anticipating contact with the patient. Many healthcare workers, if they are unaware of the policy, will welcome the opportunity to avoid the gowns and gloves if they are not necessary.

- Know the evidence (or lack thereof) and spread the word. Understanding the evidence behind the practice of donning gloves and gowns and take the opportunity to discuss contact precautions with other healthcare professionals. Many health care professionals believe the practice is wasteful, time consuming, and suspect that it is not particularly useful in preventing the transmission of MDROs. Professionals are often surprised to hear that there is not more evidence that specifically supports the donning of gloves and gowns. A statement such as “Did you know that there is relatively little to no evidence studying the efficacy of solely donning gowns and gloves in the control of infection transmission?” can generate quite an interesting conversation among your fellow nurses. By spreading the word and providing the evidence you may grab the ear of someone who is in a position to make a change or promote further research of the issue.
- Meet and discuss the issue with the environmental and infection control coordinators at your institution. Not only may the practice be wasteful but it is also extremely costly. An institution may be amenable to performing the necessary research if there is a financial incentive behind the potential outcome.

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