

HICPAC Comments: Nov. 13, 2019



I feel what I have witnessed confirms that we are firmly in the beginnings of the post antibiotic era.

Of particular concern are nursing homes, where the reported risk of carriage of resistant bacteria is alarming, well over 50%.(1) And carriage in both the patient and the environment(2) can last for months.

The 2019 CDC Threat Assessment lists *Candida auris* and CRE as an urgent threat and MRSA as a severe threat. A Slide from this's morning's Threat Assessment presentation stated *Candida auris* and CRE needs to be contained through an "aggressive approach." However, the current "enhanced barrier precautions" for nursing homes have lowered the standards of control for these three dangerous organisms.

Enhanced barrier precautions do not require a single room and do not require restriction of movement or activity participation in a facility. And gowns are not required for "lowest risk" activities.

Let's look at the data:

MRSA Colonized patients have been shown to contaminate the environment more than those with infections (3).

According to Roghmann, et al.(4), the risk of Nursing Home Resident MRSA colonization is 28% (113/401). An example of a low risk activity would be passing of meds. Which has a detected transmission to gowns in 8% and to gloves in 16% of healthcare workers **for each resident interaction.**

If a typical healthcare worker who passes meds is taking care of 25 residents and the average patient receives medications three times a day, and 7 of these residents will be colonized, then there will be 147 interactions per week with colonized residents. At an 8% transmission rate to gowns per interaction, one would expect over 11 transfers of MRSA to the clothes of a non-gowned healthcare worker each week with enhanced barrier precautions.

The same calculation for gram negative bacteria (Blanco, et al.(5)) would be one transmission per week.

{According to Blanco, et al., the risk of Nursing home resident GNB colonization is 22.8% (74/325). For example, a low risk activity would be passing of meds. With transmission detected to gowns in (3% any interaction and passing meds had a 0.5 odds ratio) 1.5% of healthcare workers **for each resident interaction.**}

This data also shows how hand hygiene alone will be ineffective in stopping the epidemic.

The excuse that residents need to have "dignity" preserved, pales in reality to the risks inflicted upon visiting grandchildren, whom no nursing home resident would want to infect. And what is the transmission risk when hugging one's grandchildren? I bet it is not low. Soon nursing homes will not be visited by young children.

I feel it is of utmost importance that we have an informed public and patients. And that we protect our healthcare workers. Finally, if we are unable or unwilling to allocate the resources to stop this epidemic, we need to at least provide informed consent to patients regarding the risks of these infections and carrier rates within facilities.

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References:

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