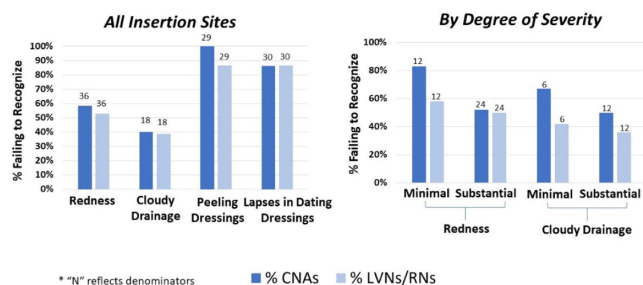


Failure to Recognize Problems at Central Line Sites



(40%) and LVNs or RNs (39%)), peeling dressings [CNAs (100%) and LVNs or RNs (87%)], and inappropriately dated dressing [CNAs (71%) and LVNs or RNs (68%)]. For both CNAs and LVNs and RNs, recognition of redness and cloudy drainage improved with severity. Failure to recognize minimal erythema [CNAs (83%) and LVNs or RNs (58%)] was higher than substantial erythema [CNAs (54%) and LVNs or RNs (50%)]. Similarly, failure to recognize minimal cloudy drainage [CNAs (67%) and LVNs or RNs (50%)] was higher than substantial cloudy drainage [CNAs (42%) and LVNs or RNs (36%)]. Overall, identification of problematic elements did not vary by whether the staff member was assigned to care for that resident. Descriptions of "picture-perfect lines" were uniformly poor, with respondents not knowing what elements to mention. **Conclusions:** Failure to recognize redness, cloudy drainage, peeling dressings, and lapses in dressing change dates was common for CNAs and LVNs and RNs in nursing homes. This lack of recognition could prevent proper response to early and late signs of localized infection at central-line sites. Dedicated training regarding key elements of a "picture-perfect line" is needed, including changing the threshold for concern for both small and large amounts of redness and pus.

Disclosures: None

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Presentation Type:

Poster Presentation - Poster Presentation

Subject Category: Long-term Care

Does universal nasal/skin decolonization in nursing homes affect risk factors for MRSA carriage?

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Background: A regional decolonization intervention (SHIELD-OC) involving universal chlorhexidine for routine bathing and 5 days of twice-daily nasal iodophor every other week in nursing homes (NHs) recently demonstrated marked reductions in multidrug-resistant organisms, all-cause hospitalizations, and infection-related hospitalizations in Orange County, California. Specific to methicillin-resistant *Staphylococcus aureus* (MRSA), NH prevalence (nares, skin, or perirectal) decreased from 43% to 29%. **Methods:** We conducted a retrospective cohort study evaluating the impact of decolonization on factors associated with MRSA carriage. The cohort included residents from 18 SHIELD-OC NHs who were sampled for MRSA using nares, axilla, groin, and perirectal cultures. A point-prevalence survey was conducted in 2016–2017 (before decolonization, 50 randomly sampled residents per NH) and in 2018–2019 (decolonization, all residents sampled). Resident characteristics were obtained from their most proximal admission, quarterly, and/or discharge assessment using data mandated for NH reporting (CMS minimum data set), and included demographics, medical devices, comorbidities (including Alzheimer's disease and related dementias or ADRD), and mobility and hygiene needs. We used generalized-linear mixed models stratified by decolonization and clustered by NH to identify differences in factors associated with MRSA carriage. **Results:** Of the 2,351 NH residents, 2,255 (96%) had characteristics available in the CMS data set. Of the 2,255

Characteristic	Baseline N=844		Decolonization N=1411	
	OR (95% CI)	P-value	OR (95% CI)	P-value
Presence of Any Medical Device ^{1,2}	2.5 (1.7-3.7)	<0.001	1.1 (0.8-1.5)	0.64
Total Dependence on Staff for Mobility Needs ^{3,4}	1.6 (1.1-2.2)	0.01	1.7 (1.3-2.2)	<0.001
Diabetes	1.4 (1.1-2.0)	0.02	0.9 (0.7-1.2)	0.49
Alzheimer's Disease or Related Dementia ⁵	1.3 (0.9-1.8)	0.10	1.2 (0.9-1.5)	0.25
Cancer	1.3 (0.9-2.1)	0.22	1.1 (0.7-1.5)	0.71
Male Gender	1.3 (1.0-1.8)	0.07	1.6 (1.2-2.0)	<0.001
Hispanic Ethnicity	1.5 (1.0-2.2)	0.06	1.0 (0.7-1.5)	0.78

¹ Resident had at least one of the following devices: indwelling urinary catheter, ostomy, tracheostomy, ventilator

² Presence of a medical device was collinear with post-acute stay (length of nursing home stay <100 days) and Medicaid insurance

³ Total dependence on staff for walking and/or locomotion (including wheelchair)

⁴ Dependence on staff for mobility needs was found to be collinear with dependence on staff for hygiene needs

⁵ Alzheimer's Disease or Related Dementia was collinear with age

residents included, 774 (34%) were MRSA carriers. Before decolonization, medical devices (OR, 2.5), limited mobility (OR, 1.6), and diabetes (OR, 1.4) were significantly associated with MRSA carriage in an adjusted model (Table). During decolonization, these effects were mitigated (medical device OR, 2.5–1.1; diabetes OR, 1.4–0.9) and were no longer significantly associated with MRSA carriage. Male sex appeared to have more of an effect in the decolonization phase (OR, 1.3–1.6), but limited mobility remained stable (OR, 1.6–1.7). Several variables were collinear. Presence of a medical device was collinear with postacute stays (<100 days) and Medicaid insurance. Limited mobility was associated with limited ability for hygienic self-care. ADRD was collinear with age. Final adjusted models accounted for medical devices, limited mobility, diabetes, ADRD, cancer, sex, and ethnicity. **Conclusions:** In a large interventional cohort of 18 NHs, factors associated with MRSA carriage changed after adoption of universal decolonization. Specifically, the increased risk of MRSA associated with medical devices and diabetes were substantially mitigated by decolonization, suggesting that these risks are modifiable. These long-term care findings are consistent with clinical trials showing reductions in MRSA carriage after implementing chlorhexidine bathing in ICUs and in non-ICU patients with devices. The ability of decolonization to attenuate the risk of MRSA carriage among diabetics or other potential high-risk groups deserves further study.

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Not as simple as it seems: Extensive facility and training gaps in nursing home bathing

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Background: Existing training for resident bathing in nursing homes (NHs) is brief and limited, likely because bathing is assumed to be intuitive. However, residents have complex skin issues, devices, dressings, and limited ability for self-care. We sought to assess bathing quality and to identify barriers to proper bathing techniques. **Methods:** We conducted a prospective observational study of bathing in 8 NHs in Orange County, California, involving a convenience sample of observed bed baths and showers conducted for quality improvement. NH staff were told that observation was occurring, and no feedback was given during or after bathing. Survey elements included cleansing of 6 specific body sites and adherence to bathing procedures (11 for bed baths and 17 for showers). Surveys also included queries to staff to further assess knowledge and perceived barriers. Observed lapses were documented, along with observer-determined reasons for noncompliance (ie, training issue, time pressure, facility issue (insufficient water temperature), resident refusal/behavior). Frequency of noncompliance with each element was tabulated for bed-baths and