Implementing a postdischarge methicillin-resistant *Staphylococcus aureus* decolonization protocol within a Veterans Affairs Health Care System facility

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To the Editor—Approximately 60% of methicillin-resistant *Staphylococcus aureus* (MRSA) infections occur after hospital discharge in Veterans Affairs (VA) patients who are colonized with the organism as inpatients.1 A recent multicenter, randomized, controlled trial (the CLEAR Trial) demonstrated a 44% reduction in such infections using a postdischarge decolonization regimen of chlorhexidine body rinse and mouthwash and nasal mupirocin.2 The CLEAR trial employed monthly phone calls, unit dose medications, and monetary incentives to improve protocol adherence. Unlike the CLEAR Trial, which was funded in part by the Agency for Healthcare Research and Quality, patient coaching, monetary incentives, and monthly calls to promote adherence with the decolonization regimen may be impractical in some VA medical centers due to fiscal and personnel constraints. However, we reasoned that if the CLEAR Trial decolonization protocol could be implemented within the Veterans Healthcare Administration (VHA), it may decrease postdischarge MRSA infections. We conducted a pilot study to test this hypothesis.

Patients from October 1, 2019, through April 1, 2020, were identified for enrollment into the Lexington VA study using a software program that mines VA Corporate Data Warehouse and identifies all patients with a history of MRSA colonization or infection within the past 12 months and who were admitted to the medical center within the past 24 hours. All admissions were additionally screened for eligibility using the VA Computerized Patient Record System. Patients were eligible for recruitment if they had the ability to bathe or shower (alone or with assistance) and were likely to be discharged home. Patients were excluded if they were under hospice care, allergic to the decolonization products, demented, admitted to the mental health unit, or were homeless, or in hospice. Moreover, 34% of patients discontinued the protocol because of death (n = 9), unexpected admission to a long-term care facility (n = 5), or at their request (n = 2). No patient was fully adherent with the decolonization protocol, 6 (13.6%) were partially adherent, and 38 (86.4%) were nonadherent. In total, 44 patients were enrolled in the trial among 301 screened for inclusion. Reasons for not being recruited included having a negative admission nasal swab (n = 64), declining to participate (n = 48), being missed by recruiters (n = 11), or other reasons (n = 75). The most common other reasons were being a nursing home resident, demented, a mental health patient, home, or in hospice. Moreover, 34% of patients discontinued the protocol because of death (n = 9), unexpected admission to a long-term care facility (n = 5), or at their request (n = 2). No patient was fully adherent with the decolonization protocol, 6 (13.6%) were partially adherent, and 38 (86.4%) were nonadherent.

Our study has several limitations. The most readily available and cost-effective product sizes were dispensed. As a result, the mupirocin ointment and chlorhexidine body wash may have lasted longer than 30 days, yet this product was never refilled more than twice by any subject during the 6-month study period consistent with overall adherence being poor. Another limitation was the small study population with numbers also reflect the difficulty of recruiting patients into this protocol because of death (n = 9), unexpected admission to a long-term care facility (n = 5), or at their request (n = 2). No patient was fully adherent with the decolonization protocol, 6 (13.6%) were partially adherent, and 38 (86.4%) were nonadherent. In total, 44 patients were enrolled in the trial among 301 screened for inclusion. Reasons for not being recruited included having a negative admission nasal swab (n = 64), declining to participate (n = 48), being missed by recruiters (n = 11), or other reasons (n = 75). The most common other reasons were being a nursing home resident, demented, a mental health patient, home, or in hospice. Moreover, 34% of patients discontinued the protocol because of death (n = 9), unexpected admission to a long-term care facility (n = 5), or at their request (n = 2). No patient was fully adherent with the decolonization protocol, 6 (13.6%) were partially adherent, and 38 (86.4%) were nonadherent.

Our study has several limitations. The most readily available and cost-effective product sizes were dispensed. As a result, the mupirocin ointment and chlorhexidine body wash may have lasted longer than 30 days, and may have led us to underestimate adherence. On the other hand, the chlorhexidine oral rinse had a measurable volume that should have lasted only 30 days, yet this product was never refilled more than twice by any subject during the 6-month study period consistent with overall adherence being poor. Another limitation was the small study population with only 44 (15%) of 301 screened admissions enrolled. The results may have been more robust with larger numbers. However, these numbers also reflect the difficulty of recruiting patients into this decolonization protocol and is consistent with a poststudy survey showing that many patients did not perceive their health as being better because of the decolonizing regimen (data not shown).

In this pilot study, 86% of patients at the Lexington VA did not adhere to the MRSA decolonization protocol used in the CLEAR Trial. Our trial may have been more effective if we could have...
provided the monthly adherence calls, convenient unit dose medications, and/or monetary incentives utilized in the CLEAR Trial. In the CLEAR Trial, most MRSA carriage reduction occurred in the first month of the decolonization protocol. A shorter decolonization course may be more acceptable to patients and still achieve the benefits sought.

Acknowledgments.

Financial support. No financial support was provided relevant to this article.

Conflicts of interest. All authors report no conflicts of interest relevant to this article.

References