Published in final edited form as:

J Hosp Infect. 2010 June ; 75(2): 132–134. doi:10.1016/j.jhin.2009.10.031.

Patients with Methicillin-Resistant *Staphylococcus aureus* (MRSA) Infection – 21st Century Lepers

Kristin L. Mozzillo, B.A.^{1,2}, Nancy Ortiz, B.A.², and Loren G. Miller, M.D., M.P.H.^{2,3}

¹ Kaiser Permanente South Bay Medical Center, Harbor City, California

² Harbor-UCLA Medical Center, Division of Infectious Diseases, and Los Angeles Biomedical Research Institute at Harbor-UCLA Medical Center, Torrance, California

³ David Geffen School of Medicine at the University of California, Los Angeles, California

Abstract

In the recent past, there has been a dramatic increase in the incidence of methicillin-resistant *Staphylococcus aureus* (MRSA) infections, especially community-associated methicillin-resistant *S. aureus* (CA-MRSA) infections. Many media descriptions of MRSA are sensational and focus on its potential for severe disease and contagiousness.

Our objective is to describe psychological and social morbidity associated with MRSA infection via a case series of five patients with CA-MRSA infection. We also analyze the resulting stigmatization associated with being diagnosed with MRSA infection.

We learned that patients describe a variety of stigmatization related to their diagnosis of MRSA, including being shunned at home and in the workplace. Patients describe being asked by family, colleagues, and clients to take extraordinary measures to prevent MRSA transmission. Consequences of MRSA diagnoses have included erosion or termination of key personal and business relationships.

In conclusion, stigmatization resulting from the diagnosis of MRSA can have profound personal and social morbidity. Media and public health awareness of MRSA infection needs to be balanced with information about how MRSA transmission is usually preventable with simple hygienic measures.

Over the past decade, the number of methicillin-resistant *S. aureus* (MRSA) infections has escalated. This increase includes a rise in the incidence of both healthcare-associated MRSA infections and community-associated MRSA (CA-MRSA) infections.^{1, 2} CA-MRSA infections affect children and adults and can cause recurrent skin infections.³ MRSA infections have now received global attention in the mainstream media,^{4, 5} spurred the emergence of patient-driven support groups, and spawned legislation aimed at decreasing infections.⁶ Public consciousness of MRSA infections has probably never been higher. However, many media descriptions of MRSA are sensational and focus on its potential for severe disease, contagiousness, and death.⁷

With the rise in awareness of MRSA infections, we have witnessed an increased number of MRSA-diagnosed patients who are stigmatized by family, friends and colleagues. Although

Corresponding author: Loren G. Miller, M.D., M.P.H., Division of Infectious Diseases, Harbor-UCLA Medical Center, 1000 W Carson St, Bin 466, Torrance CA 90509, Phone: (310) 222-5623, fax: (310) 782-2016, lgmiller@ucla.edu.

Publisher's Disclaimer: This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

we didn't prospectively collect narratives in a systematic manner, the anecdotes we obtained were highly striking and previously unreported. Herein we describe five narratives of otherwise healthy patients who have been stigmatized due to their MRSA diagnosis. These anecdotes were obtained spontaneously from research subjects by research staff from research subjects enrolled in clinical trials or epidemiologic investigations of MRSA infection.

Patient #1

A 17 year-old female was followed by physicians for recurrent MRSA abscesses. The girl lived with her mother, stepfather, and two siblings, none of whom had MRSA infections. The patient's mother asked her providers many questions about MRSA transmission and was concerned about a younger sibling in the household 'contracting' it.

During routine medical follow up, the patient told her providers that her living situation had drastically changed. The patient's mother began to insist on watching her adequately clean the family bathroom after each use. The mother purchased plastic cups, dishes, and cutlery and directed the patient to use only this kitchenware and not share them. The mother kept these items in a separate cabinet, and insisted they be washed and dried with a separate sponge and towel. The patient complied with all of her mother's requests.

The patient also expressed a genuine concern of passing MRSA to others. She revealed that she had been hesitant to engage in any type of sexual relationship or "age appropriate" activities such as kissing. She rarely holds peoples' hands, does not shake hands even when prompted, and receives no affection in the form of hugs or kisses from her family members. However, she notes that family members are very affectionate towards all other family members.

Ultimately, although the patient had been compliant with her mother's requests, subsequently her mother asked her to move out of the family home. She has since moved in with her father.

Patient #2

A 29 year-old female has a history of recurrent MRSA infections that have left cutaneous scarring on her arms and legs. She owns a pet care company that provides grooming services, pet sitting, and pet walking.

She is periodically afflicted with skin abscesses that can be challenging to cover up. Several clients asked what her skin infections were. On at least five occasions, clients specifically withdrew their business due to her MRSA infections. This reason for discontinuing services was confirmed when the patient contacted clients after they withdrew business, requested their feedback, and asked the clients why they stopped using her services. Multiple clients stated they were worried about the patient giving MRSA to their pet. Some clients stated they did not want the patient in their home. One client was very concerned about the patient sitting on their couch and touching the household's water faucet and would not allow the patient to enter the home to walk their dogs citing the patient would have to touch the doorknob. Another client asked the patient to pay to replace the pet's leash, collar, and other household items that she touched. She stated several other clients' business ceased coinciding with her having visible lesions, but those clients did not respond to her request for feedback. The patient noted that she followed medical advice and kept her skin lesions covered and noted that, to her knowledge, none of the pets with which she had contact ever presented with any type of infection. Despite attempting to educate her clients about MRSA, she was not able to regain any lost business and worries about the sustainability of her career.

Patient #3

A 62 year-old male with a history of MRSA skin infections works as a bus driver. A boss who found out about the patient's MRSA asked the patient to use alcohol or bleach on the seat cushion and steering wheel after completing a shift. Out of concern for passing the infection to others, the patient agreed. He was eventually asked to get his own seat cushion and take it with him after his shift. He reports feeling stigmatized and discriminated against because, amongst the bus drivers at his company, only he has to carry a bus seat with him. He said he has lost many friends and co-workers and fears losing his job. Although he feels his company may not be able to legally fire him, he also notes that it would be difficult to get re-hired as his colleagues all know he has MRSA.

Patient #4

The parents of 12 month-old twin boys reported that, since one of their son's diagnosis with MRSA, they have been unable to keep a nanny employed. The children's mother reported that for six months the nanny she hired after her children were born would care for the boy's skin lesions before the parents were aware of what the lesions were. At the age of seven months, one of the boys was diagnosed with MRSA. When the parents informed the nanny of the diagnosis, the nanny immediately packed her belongings and left. The parents reported that, since this time, they have had a "revolving door" of nannies. They have always given full disclosure of the MRSA diagnoses to all nannies or prospective nannies, especially since the care of their children has, at times, included care of MRSA skin lesions. They have also provided all nannies with education on MRSA treatment and prevention. They said that the nanny's asked or stated: "Isn't that the stuff that kills people?", "You can't get rid of that", or "I don't want to bring MRSA home to my family". Most declined an employment offer before starting. All others left within days or weeks. The mother stated that the nannies were apologetic, and stated that their agency, family, or friend had told them they should not work with MRSA-infected children. Unable to find a nanny, the mother has since substantially reduced her work hours to care for the children at home.

Patient #5

A 37 year-old male reported that he had been struggling with the recurrences of MRSA infections for one year. He stated that his wife was extremely concerned and fearful since she knew of no one else suffering from these infections. He said that her fear had been heightened when the youngest of their three children, a toddler, developed a MRSA infection.

Since that time, his wife had dramatically changed her household cleaning habits. His wife now washed everything down with bleach and purchased chlorhexidine solution insisting it be the only body soap that he uses. He reported that his wife had forced him to move out of their bedroom and assigned him his own bathroom in the house, which the children are not allowed to use. He now resides in the car garage. His wife had also provided her husband a towel and hairbrush for his exclusive use. His wife no longer allows him to touch, pick up or hug the child for fear that the child would "catch" MRSA. His wife also instructed the children not to touch any of their father's belongings and to be wary of touching objects that he had used previously. He shared that his infections were creating an emotional strain on the family and he was not sure how much further he could continue to live isolated in his own home.

In our anecdotal experience, the diagnosis of MRSA can result in profound social stigma among many patients akin to what persons with HIV infection or Hansen's disease (leprosy) have experienced.^{8,9} The rise in MRSA awareness is likely fueled by the increasing incidence of disease, sensationalistic media reports, and the rapid retrievability of MRSA information from the internet,⁷ which are of questionable accuracy. While are findings are not from systematic

evaluation, we found one consequence of increased MRSA awareness appears to be the heightened stigmatization of those afflicted.

We believe that, to prevent further stigmatization, public awareness of MRSA infection needs to be balanced with information about how MRSA is usually curable and how transmission can be prevented by simple hygienic measures, such as hand washing and environmental cleaning.¹⁰ Furthermore, outbreaks of MRSA are usually easily halted by the introduction of these “low tech” interventions.¹¹ The media, medical and public health communities need to refine their messages about MRSA infection so that persons who have suffered with MRSA do not also suffer from the societal and psychological stigmatization that makes them, in effect, 21st Century lepers.

Acknowledgments

Supported in part by grants from the National Institutes of Health (R01 AI067584-01A1) and Centers for Disease Control and Prevention (1U01CI000384-01)

References

1. Fang YH, Hsueh PR, Hu JJ, et al. Community-acquired methicillin-resistant *Staphylococcus aureus* in children in northern Taiwan. *J Microbiol Immunol Infect* 2004;37:29–34. [PubMed: 15060684]
2. Deresinski S. Methicillin-resistant *Staphylococcus aureus*: an evolutionary, epidemiologic, and therapeutic odyssey. *Clin Infect Dis* 2005;40(4):562–73. [PubMed: 15712079]
3. Miller LG, Kaplan SL. *Staphylococcus aureus*: a community pathogen. *Infect Dis Clin North Am* 2009;23:35–52. [PubMed: 19135915]
4. Washer P, Joffe H, Solberg C. Audience readings of media messages about MRSA. *J Hosp Infect* 2008;70:42–7. [PubMed: 18621438]
5. Madeo M, Shields L, Owen E. A pilot study to investigate patients reported knowledge, awareness, and beliefs on health care-associated infection. *Am J Infect Control* 2008;36:63–9. [PubMed: 18241739]
6. DerGurahian J. Ill to test patients for MRSA. Initiative has other states following quickly behind. *Mod Healthc* 2007;37(34):17. [PubMed: 17957869]
7. Washer P, Joffe H. The “hospital superbug”: social representations of MRSA. *Soc Sci Med* 2006;63:2141–52. [PubMed: 16782254]
8. Mahajan AP, Sayles JN, Patel VA, et al. Stigma in the HIV/AIDS epidemic: a review of the literature and recommendations for the way forward. *AIDS* 2008;22 (Suppl 2):S67–79. [PubMed: 18641472]
9. van Brakel WH. Measuring leprosy stigma--a preliminary review of the leprosy literature. *Int J Lepr Other Mycobact Dis* 2003;71:190–7. [PubMed: 14608814]
10. Methicillin-resistant *staphylococcus aureus* infections among competitive sports participants--Colorado, Indiana, Pennsylvania, and Los Angeles County, 2000–2003. *MMWR Morb Mortal Wkly Rep* 2003;22(52):793–5.
11. Nguyen DM, Mascola L, Brancourt E. Recurring methicillin-resistant *Staphylococcus aureus* infections in a football team. *Emerg Infect Dis* 2005;11:526–32. [PubMed: 15829189]