

Be Vigilant, Aggressive With Suspected CA-MRSA

"If you see something that looks like a spider bite and you are not in an endemic area, think CA-MRSA."

BY DAMIAN McNAMARA
Miami Bureau

AMELIA ISLAND, FLA. — Vigilance, aggressive drainage, and the appropriate antibiotic are components of a strategy to counter community-acquired methicillin-resistant *Staphylococcus aureus* infections in an office practice setting, according to a presentation at a meeting on pediatrics for the primary care physician, sponsored by Nemours.

"There is something about staph that seems to wax and wane across the decades. I will contend that you and I are coming off a period of relatively mild staph and [entering] a period of bad staph," Dr. Kenneth Alexander said.

Community-acquired methicillin-resistant *Staphylococcus aureus* (CA-MRSA) is increasingly common, appears to be permanent, and is polyclonal, he said.

CA-MRSA is distinct from hospital-acquired infection. "Kids are coming in with CA-MRSA who have no contact with the health care system whatsoever. So you don't need to look for that history," said Dr. Alexander, a pediatric infectious diseases expert at the University of Chicago.

Management of children with suspected CA-MRSA begins with drainage and culture of any abscess, he said. "Be aggressive about drainage. Now more than ever, culturing staph infections is critically important to good patient care."

Know your local *S. aureus* epidemiology and keep track of your own resistance data, Dr. Alexander said. In Chicago, about 85% of community-acquired *S. aureus* infections are methicillin resistant, compared with about 50% in northern Florida, for example. "Resistance patterns vary in Chicago in children from patterns seen in adults. So, unfortunately, a hospital antibiogram is not as helpful to us about kids."

Trimethoprim and sulfamethoxazole (TMP/SMX), clindamycin, and minocycline are treatment options for minor CA-MRSA infections. "You can use something wimpy like TMP/SMX with a small drained abscess [less than 2 cm] or small areas of cellulitis or impetigo, with good follow-up," Dr. Alexander said.

If those criteria cannot be met; or the patient has lesions on the face, head, neck, hands, or feet; the patient looks sick or febrile; the lesion looks deeper than the skin; or the infection is progressing, "then

we have to pull out the big stick, clindamycin," Dr. Alexander said. "TMP/SMX and clindamycin are your go-to antibiotics." The good news, he said, is "CA-MRSA is more susceptible to these treatments than hospital-acquired infections" are.

For serious outpatient infections, Dr. Alexander suggested oral clindamycin or a combination of TMP/SMX and rifampin, although rifampin is expensive. Initial therapy with oral clindamycin is "no one's idea of fun," he said, because of the bad taste of the medication. If the culture subsequently indicates a susceptible form of infection, the child can be switched to Keflex (cephalexin).

"Fear staph [*S. aureus*] infections, especially in babies," Dr. Alexander said. "If you see staph [*S. aureus*] in a baby, walk over to the wall and pull the fire alarm. This is a code-blue infection."

For the most serious infections, admit the child to the hospital and treat with either intravenous clindamycin or intravenous vancomycin. Vancomycin is indicated if the *S. aureus* is erythromycin-resistant and resistance to clindamycin is inducible (indicated with a positive D-test), he added. "At the University of Chicago, we use IV clindamycin."

Linezolid (Zyvox) and daptomycin (Cubicin) are two newer antibiotics for MRSA, "although I am not suggesting you use

them," Dr. Alexander said. Linezolid shows reliable oral activity against MRSA. "The downside is this stuff is priced to compete with hospitalization. And it's three doses of a liquid that tastes [terrible]." Daptomycin is restricted for life-threatening infections in hospitalized patients.

Some physicians ask Dr. Alexander about use of amoxicillin-clavulanate (Augmentin). "If you have a kid with MRSA, and you treat with Augmentin, what you have is a kid with MRSA and diarrhea, nothing more," he said.

Include herpes infection in the differential diagnosis for a patient with recurrent infections on the nails or in the nose, Dr. Alexander said. In addition, "if you see something that looks like a spider bite, and you are not in an endemic area, think CA-MRSA."

Another common question is the prevention strategy for a family passing *S. aureus* infections back and forth, Dr. Alexander said. "Treat staph in family a little bit the way you would with lice." Proper hygiene is important. Prescribe antibacterial soaps; use of clean, dry towels and bedding; and frequent hand washing. Also, assess skin-care products to make sure they are not the vector.

"Take staph [*S. aureus*] infections seriously, even seemingly minor ones," he said. ■

Educate About Repeated Staph Skin Infections

BY TIMOTHY F. KIRN
Sacramento Bureau

ASPEN, COLO. — Can patients with repeated *Staphylococcus aureus* infections be decolonized to prevent recurrences?

The evidence supporting this approach is not very good. But, it is always worth a try, Dr. Sarah K. Parker said at a meeting on pediatric infectious diseases sponsored by the Children's Hospital, Denver.

Community-acquired staphylococcal infections are on the rise, even in normal, healthy children. Now, many of the organisms seen in the community—as well as in the hospital—are methicillin resistant.

Two or three times a week, she sees a child with a small, pustular lesion (often on the buttocks) that the child's primary-care physician has called a bug bite, but which turns out to be a *S. aureus* infection instead, said Dr. Parker of the pediatric infectious diseases department at the hospital.

That's a very common misdiagnosis of these infections. It is one that has been noted by other infectious disease specialists, and it illustrates not just how common the misdiagnosis has become, but also how common the infections now are, Dr. Parker said.

Some individuals do have recurrences that may be the result of incomplete treatment, but it also appears that some individuals just may be prone to repeated infections.

The Cochrane Collaboration recently reviewed evidence on methods for decol-

onizing patients with antibiotic treatment, Dr. Parker noted. It concluded that the practice of treating patients prophylactically with antibiotics or mupirocin to reduce nasal carriage of *S. aureus* is not supported by enough good evidence.

The exception may be for the use of mupirocin, which has been the subject of various studies. In general, that research shows that, if patients are treated twice daily for 5-7 days, 85% of them will be culture negative at about 14 days. However, 25% of those will be recolonized by 30 days, and 50%-70% will be recolonized by 6 months, Dr. Parker said.

Moreover, the nose isn't the entire story, she added. About 60% of individuals with staphylococcus in the nares also are colonized at other sites, and 20% of those colonized in sites other than the nose are not colonized in the nose.

One placebo-controlled study that used mupirocin in 32 normal individuals with recurrent infections for 5 days each month for 12 months reported that infections were reduced by about 50%, but not totally (Arch. Int. Med. 1996;65:109-13).

Also, in that study and others, resistance did develop. "This is a serious concern," she said.

Therefore, given the questionable efficacy that prophylactic mupirocin treatment is likely to have and the resistance,

Dr. Parker said she focuses on education for patients and families that have recurrent infections and resorts to a single, twice-daily course of mupirocin for 5 days only on occasion in those who have already been educated.

Among the measures she educates patients about include the following:

She tells parents to inspect the child carefully and often, since many times the sites of infections are in places covered by clothing.

Nails need to be kept clean and short to prevent scratches.

Bathing with an antimicrobial soap, such as hexachlorophene or chlorhexidine, can be 20%-50% effective at decolonizing extranasal sites in the short term.

Some recommend having patients bathe with bleach in the water, about 1 tablespoon per gallon, which is not much more than is found in a chlorinated swimming pool.

Towels and underwear need to be changed and washed often, Dr. Parker said.

For the physicians who see these infections, surgical treatment is most important.

"Incise these lesions and drain them very early, like as soon as you see a little head, get this thing open," Dr. Parker said. "Scrub it, clean it, and even use a topical antistaph [treatment] on it." ■

WHO, UNICEF Complete Plan for Access to Medicine

The World Health Organization and the United Nations Children's Fund have completed a plan to expand access to essential pediatric medicines in developing countries.

Completed in a meeting last month of government officials and leaders of nongovernment organizations, the plan will target medicine for conditions such as diarrhea, HIV/AIDS, respiratory tract infections, malaria, and pneumonia.

A top priority will be to expand access to combination therapies to aid correct use and adherence.

Priority needs are respiratory infections, neonatal care, pain relief for end-stage AIDS, and coinfection of HIV and tuberculosis.

The plan also emphasizes new formulations, including minitables, replacement of injections with pain-free medications, better-tasting formulations, and refrigeration-free and easily transportable mixtures.

"Too often, the right medicines for children, in the right dosages and formulations, are missing from the spectrum of available treatment options," said Dr. Howard Zucker, assistant director-general at WHO.

"WHO and UNICEF will work quickly with partners to change this," Dr. Zucker said.

—Jonathan Gardner