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Increased US emergency department visits for skin and soft tissue infections, and changes in antibiotic choices, during the emergence of community-associated methicillin-resistant Staphylococcus aureus.

Pallin DJ, Egan DJ, Pelletier AJ, Espinola JA, Hooper DC, Camargo CA Jr.

Department of Emergency Medicine, Brigham and Women's Hospital, Boston, MA, USA. dpallin@partners.org

STUDY OBJECTIVE: Test the hypotheses that emergency department (ED) visits for skin and soft tissue infections became more frequent during the emergence of community-associated methicillin-resistant Staphylococcus aureus (MRSA), and that antibiotics typically active against community-associated MRSA were chosen increasingly. METHODS: From merged National Hospital Ambulatory Medical Care Survey data for 1993-2005, we identified ED visits with diagnosis of cellulitis, abscess, felon, impetigo, hidradenitis, folliculitis, infective mastitis, nonpurulent mastitis, breast abscess, or carbuncle and furuncle. Main outcomes were change over time in rate of ED visits with such a diagnosis and proportion of antibiotic regimens including an agent typically active against community-associated MRSA. We report national estimates derived from sample weights. We tested trends with least squares linear regression. RESULTS: In 1993, infections of interest were diagnosed at 1.2 million visits (95% confidence interval [CI] 0.96 to 1.5 million) versus 3.4 million in 2005 (95% CI 2.8 to 4.1 million; P for trend <.001). As a proportion of all ED visits, such infections were diagnosed at 1.35% in 1993 (95% CI 1.07% to 1.64%) versus 2.98% in 2005 (95% CI 2.40% to 3.56%; P for trend <.001). When antibiotics were prescribed at such visits, an antibiotic typically active against community-associated MRSA was chosen rarely from 1993 to 2001 but increasingly thereafter, reaching 38% in 2005 (95% CI 30% to 45%; P for trend <.001). In 2005, trimethoprim-sulfamethoxazole was used in 51% of regimens active against community-associated MRSA. CONCLUSION: US ED visits for skin and soft tissue infections increased markedly from 1993 to 2005, contemporaneously with the emergence of community-associated MRSA. ED clinicians prescribed more antibiotics typically active against community-associated MRSA, especially trimethoprim-sulfamethoxazole. Possible confounders are discussed, such as increasing diabetes or shifts in locus of care.

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