



THE CITY OF NEW YORK DEPARTMENT OF HEALTH

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nyc.gov/health

2002 Alert #14: Cluster of *Mycobacterium abscessus* infections following injections for cosmetic purposes

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Please Distribute to All Clinical Staff in Primary Care, Infectious Diseases, Emergency Medicine, Internal Medicine, Pediatrics, Family Medicine, General and Plastic Surgery, Laboratory Medicine (including Mycobacteriology Laboratory staff) and Infection Control Personnel

Dear Colleagues,

Last week the New York City Department of Health (NYCDOH) was notified of four cases of *Mycobacterium abscessus* infections following injections for cosmetic purposes administered by a person(s) in non-medical office settings. All of the cases are in Hispanic/Latina females, ages ranging from 31-65 years, residing in Manhattan or Queens. The patients report having received injections of cosmetic substances (two reported silicone, one reported collagen and one reported an unknown substance) between January and May 2002. All of the patients presented with soft tissue infections (two in the buttocks, two in the face) at three different hospitals (two in Manhattan and one in Queens). Preliminary analysis has identified *M. abscessus* from specimens from all of the patients. The NYCDOH is actively investigating to determine the circumstances surrounding this outbreak.

To identify additional cases of infections from rapidly growing mycobacteria secondary to injections for cosmetic purposes, we request IMMEDIATE REPORTING of:

- 1) Cases of cellulitis, soft tissue infection or cutaneous abscess in which rapidly growing nontuberculous mycobacteria (including *M. abscessus*, *M. chelonae* and *M. fortuitum*) has been isolated since January 1, 2002. Physicians should inquire about potential previous use of cosmetic injections in these patients;**
- 2) Cases of cellulitis, soft tissue infection or cutaneous abscess post-cosmetic injection which have not responded to standard antibiotic treatment regardless of the culture results since January 1, 2002. Clinical specimens should be obtained in these patients for mycobacterial culture;**
- 3) Laboratory isolation of all rapidly growing mycobacteria (including *M. abscessus*, *M. chelonae* and *M. fortuitum*) from a skin or soft tissue specimen at their facility since January 1, 2002.**

Please report all cases meeting the above criteria to the Tuberculosis Control Program:

During business hours: 212-788-4162
After hours, contact the Poison Control Center: 212-764-7667 or 1-800-222-1222

M. abscessus (formerly *M. chelonae* subspecies *abscessus*) is an acid-fast rod classified with *M. fortuitum* and *M. chelonae* as pathogenic “rapid growing” nontuberculous mycobacteria (formerly Mycobacteria Other Than Tuberculosis or MOTT). Although these organisms are ubiquitous in the environment and have been found in municipal and well water, soil, and dust, they rarely cause disease in humans. *M. abscessus* has been associated with a variety of infections including skin and soft-tissue infections (following puncture wounds or inoculations) (1), pulmonary infection, infections related to foreign material (e.g., porcine and prosthetic cardiac grafts, prosthetic joints, intravenous and dialysis catheters, tympanoplasty tubes, and augmentation mammoplasty), and postsurgical infections (2,3). In 1996, a cluster of *M. abscessus* infection associated with intramuscular injections of adrenal cortex extract was reported in the Morbidity and Mortality Weekly Report. In that investigation, mycobacterium consistent with *M. abscessus* was isolated from bottles of the substance used for injection (4). Bacteremia and disseminated infection, although rare, occur most commonly in immunocompromised hosts and result in high proportions of deaths (5).

Diagnosis of *M. abscessus* infection relies on culture and identification of the organism. Rapidly growing mycobacteria grow well in broth (e.g., BACTEC 12B broth used in the BACTEC TB460 radiometric system) or on agar-based media specific for the growth of mycobacteria (e.g., Middlebrook 7H10 or Lowenstein-Jensen agar) in 5–8 days (6). Isolates can be mistaken for “diphtheroids” unless acid-fast staining or further identification is performed (4). Species identification and susceptibility testing should be conducted in a reference laboratory.

Treatment of *M. abscessus* infection involves removal of infected tissue or prosthetic material and antimicrobial therapy. Most isolates of *M. abscessus* are susceptible to clarithromycin, amikacin, imipenem, and cefoxitan (1,6,7). Monotherapy may be considered for localized skin infections (8), however, combination chemotherapy with at least two antimicrobial agents to which the isolate is susceptible is advised for disseminated disease because monotherapy has been shown to contribute to the development of resistance (9). Localized disease typically responds to 6 months of therapy in immunocompetent hosts, and disseminated infections can require >6 months of therapy (1,8).

We continue to appreciate our ongoing partnership with the medical and laboratory communities in New York City in helping us identify and control outbreaks of communicable diseases.

Sincerely,

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References

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2. Wallace RJ, Swenson JM, Silcox VA, Good RC, Tschen JA, Stone MS. Spectrum of disease due to rapidly growing mycobacteria. *Rev Infect Dis* 1983;5:657-79.
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7. Brown BA, Wallace RJ, Onyi GO, De Rosas V, Wallace RJ III. Activities of four macrolides, including clarithromycin, against *Mycobacterium fortuitum*, *Mycobacterium chelonae*, and *M. chelonae*-like organisms. *Antimicrob Agents Chemother* 1992;36(1):180-4.
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