The systematic identification of rickettsial species in human infections continues to increase the number of recognized human pathogens (3). This finding has demonstrated once again that more than one species or serotype of tick-transmitted rickettsia may be prevalent in the same area, as observed, for example, with R. slovaca, “R. mongolotimonae,” and R. conorii in southern France (3); R. africae and R. conorii in sub-Saharan Africa (8); and R. conorii and Israeli spotted fever rickettsia in Sicily and Portugal (9). Rickettsia species first identified in ticks should be considered as potential human pathogens, as all recently described tick-transmitted rickettsiae pathogenic for humans were initially found in ticks and were considered nonpathogenic for several years (3).

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References
1. Beati L, Meskini M, Thiers B, Raoult D. Rickettsia aeschlimannii sp. nov., a new spotted fever group rickettsia associated with Hyalomma marginatum ticks. Int J Syst Bacteriol 1997;47:546–54.
2. Parola P, Raoult D. Ticks and tickborne bacterial diseases in humans: an emerging infectious threat. Clin Infect Dis 2001;32:897–928.
3. Raoult D, Roux V. Rickettsioses as paradigms of new or emerging infectious diseases. Clin Microbiol Rev 1997;10:694–719.
4. Roux V, Fournier PE, Raoult D. Differentiation of spotted fever group rickettsiae by sequencing and analysis of restriction fragment length polymorphism of PCR amplified DNA of the gene encoding the protein RompA. J Clin Microbiol 1996;34:2058–65.
5. Nilsson K, Lindquist O, Pahlson C. Association of Rickettsia helvetica with chronic perimyocarditis in sudden cardiac death. Lancet 1999;354:1169–73.
6. Raoult D, Berbis P, Roux V, Xu W, Maurin M. A new tick-transmitted disease due to Rickettsia slovaca. Lancet 1997;350:112–3.
7. Raoult D, La Scola B, Enea M, Fournier P, E., Roux V, Fenollar F, et al. Isolation and characterization of a flea-associated rickettsia pathogenic for humans. Emerg Infect Dis 2001;7:73–81.
8. Raoult D, Fournier PE, Fenollar F, et al. Rickettsia africæ, a tick-borne pathogen in travelers to sub-Saharan Africa. N Engl J Med 2001;344:1504–10.
9. Bacellar F, Beati L, Franca A, Pocas J, Regnery R, Filipe A. Israeli spotted fever rickettsia (Rickettsia conorii complex) associated with human disease. Emerg Infect Dis 1999;5:835–6.

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Cost-Effective Screening for Trichomoniiasis

To the Editor: I read with interest a recent article in your journal, “Trichomonas vaginalis, HIV, and African Americans” (1), and I commend the authors’ suggestion to implement screening and reporting of trichomoniiasis for high-risk populations.

In the article, a cost-effective screening approach is mentioned, which includes culturing only for those women whose wet-mount tests are negative. In 1999, my colleagues and I reported on the validity of this method for diagnosing trichomoniiasis in women (2). During our study, an additional vaginal swab was collected during the pelvic examination and placed into a glass tube. If the wet mount was negative, this swab was later added to a culture pouch for T. vaginalis. We found no statistically significant difference in the sensitivity of this method compared with that of adding swabs immediately to pouches at bedside. This method of delaying the second test until the results of the first test are known should be considered in screening women for trichomoniiasis, especially in high-prevalence populations.

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References
1. Sorvillo F, Smith L, Kerndt P, Ash L. Trichomonas vaginalis, HIV, and African Americans. Emerg Infect Dis 2001;7:927–32.
2. Schwebke JR, Venglarik MF, Morgan SC. Delayed versus immediate bedside inoculation of culture media for diagnosis of vaginal trichomoniasis. J Clin Microbiol 1999;37:2369–70.

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Reply to Dr. Schwebke

To the Editor: We welcome Dr. Schwebke’s thoughtful comments about decreasing the cost of screening for Trichomonas vaginalis. Dr. Schwebke and her colleagues have demonstrated that storing a vaginal swab for 15–20 minutes in a glass tube at room temperature does not affect the viability of T. vaginalis or reduce the sensitivity of subsequent culture. This finding shows that vaginal swabs may be stored briefly while a wet-mount preparation is made and examined. If the wet mount is negative for T. vaginalis, the stored swab can then be processed for culture. If the wet mount is positive for T. vaginalis, no further culture of the specimen is needed, thereby reducing unnecessary costs. Given that the prevalence of this infection often exceeds 20% in high-risk populations, this approach can reduce costs substantially without compromising the accuracy of the tests. Any method that reduces the cost of diagnosis will advance further.
screening for trichomoniasis and promote the ultimate goal of implementing intervention efforts.

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Hot-Tub–Associated Mycobacterial Infections in Immunosuppressed Persons

To the Editor: I read with interest the report by Mangione et al. regarding Mycobacterium avium infection in a Colorado family who used an inadequately sanitized hot tub (1). The authors noted that the source of the M. avium complex was not clear, although the reservoir did appear to have been the hot tub.

Twenty years ago, I helped treat a patient with a local infection caused by M. fortuitum in his amputation stump (2). The patient had sat in his tub postoperatively three to four times per week. Although he had added disinfectants as recommended by the manufacturer, he had not cleaned the tub mechanically at any time during the incubation period of his infection. We recovered what appeared to be the same strain of M. fortuitum from the abscess on his amputation stump and specimens from the hot tub water and filter. However, we could not recover any mycobacteria from his or his neighbor’s tap water.

Three years after our experience with this patient, M. chelonei was found to cause colonization of sputum of patients with cystic fibrosis after they had been treated in a hydrotherapy pool (3).

Very recently, an outbreak of 110 cases of furunculosis was attributed to M. fortuitum contamination of a footbath at a nail salon (4).

These experiences indicate the absolute need for careful cleaning of hot tubs. Not only are immunosuppressed patients at risk for atypical mycobacterial infections but even otherwise healthy persons may be susceptible.

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References
1. Mangione EJ, Huitt G, Lenaway D, Beebe J, Bailey A, Figoski M, et al. Nontuberculous mycobacterial disease following hot tub exposure. Emerg Infect Dis 2001;7:1039–42.
2. Aubuchon C, Hill JJ Jr, Graham DR. Atypical mycobacterial infection in soft tissue associated with the use of a hot tub. J Bone Joint Surg 1986;68-A:766–8.
3. Communicable Disease Surveillance Centre. Mycobacterium chelonei associated with a hydrotherapy pool. Commun Dis Rep 1985, October 11:3–4.
4. Winthrop KL, Abrams M, Yakrus M, Schwartz I, Ely J, Gillies D, et al. An outbreak of mycobacterial furunculosis associated with footbaths at a nail salon. N Engl J Med 2002; 346:1366-71.

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