provinces and a total of 200 camels. Umnogovi Province has the largest, and Dundgovi Province the fifth largest, camel population in the country (≈113,000 and ≈28,000 animals, respectively). Further studies on the epidemiology of MERS-CoV infection in dromedaries and Bactrian camels from central Asia, China, and Mongolia are warranted.

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References


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Oligella ureolytica
Bacteremia in Elderly Woman, United States

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To the Editor: Oligella ureolytica is an aerobic gram-negative coccobacillus found as a commensal organism in human urinary tracts (1). Previously referred to as CDC Group IVe, this bacterium is not commonly encountered as a source of infection and is difficult to isolate by using conventional laboratory procedures (2). The few cases of pathogenic infection with O. ureolytica described in the literature have occurred in patients ranging in age from newborn to 89 years and from the varied locations of India, Turkey, Canada, and the United States (3–7). We report a case of O. ureolytica bacteremia in a patient in whom sepsis was diagnosed and review the current literature on this emerging pathogen.

A 66-year-old woman sought treatment in our emergency department for a fever of 100.7°F, femur fracture, and a right buttock stage III decubitus ulcer. She reported having fallen 4 days earlier, after which she was unable to walk and spent 4 days laying in her own urine and feces. Blood tests revealed an elevated leukocyte count of $9.7 \times 10^9$ cells/L (76% neutrophils, 2% bands), and urinalysis showed trace leukocyte esterase, +3 bacteria, and 5–10 leukocytes. Chest radiograph and head computed tomography images were unremarkable. Her electrocardiogram showed nonspecific ST wave changes. Samples from the patient’s blood, urine, and wounds were collected while the patient was in the emergency department and were sent for culture.

Wound cultures showed growth of Proteus mirabilis and Enterococcus spp. The urine culture grew $>100,000$ CFU Escherichia coli. The first set of blood cultures grew O. ureolytica in aerobic and anaerobic bottles, but another set drawn 30 min later showed no growth. The blood cultures were processed by using the Bact/Alert 3D (bioMérieux, Marcy l’Etoile, France) and Gram stained. Identification was from the Vitek 2 compact system (bio-Mérieux). The O. ureolytica sample was sensitive to amikacin, ampicillin/sulbactam, ceftazidime, ceftriaxone, gentamicin, imipenem, levofloxacin, nitrofurantoin, trimethoprim/sulfamethoxazole, and chloramphenicol. No resistance was found.

Because of the unique bacteremia, further diagnostics were conducted. The results of chest, abdomen, and pelvic computed tomography scans were unremarkable. HIV

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The incubation period is long (4 days), and not all laboratories incubate cultures for that long, as occurred in the 2013 urinary tract infection case (1,3,5). Also, the identification of less commonly encountered bacteria is not always pursued to the genus and species level (2). Furthermore, it is believed that Oligella spp. can be misidentified as phenotypically similar organisms, such as Bordetella bronchiseptica and Achromobacter spp. (4,10).

We believe that many cases of O. ureolytica infection have gone unrecognized or were incorrectly identified. Some cases may also have been dismissed as contamination because of laboratorians’ and clinicians’ lack of familiarity with this bacterium. Our review suggests that advancing laboratory techniques will lead to more recognized cases and that further studies are necessary to understand this bacterium’s clinical significance.

Acknowledgments
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References

Table. Documented cases of pathogenic Oligella ureolytica infection*

<table>
<thead>
<tr>
<th>Year</th>
<th>Patient age, y</th>
<th>Patient sex</th>
<th>Location</th>
<th>Culture source</th>
<th>Concurrent conditions</th>
<th>Urinary disorder</th>
<th>Reference†</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>30</td>
<td>M</td>
<td>India</td>
<td>Blood</td>
<td>Metastatic lung adenocarcinoma</td>
<td>None</td>
<td>(3)</td>
</tr>
<tr>
<td>2013</td>
<td>Newborn</td>
<td>F</td>
<td>Turkey</td>
<td>Blood</td>
<td>Adenocarcinoma of prostate</td>
<td>Maternal urine exposure during delivery?</td>
<td>(4)</td>
</tr>
<tr>
<td>2013</td>
<td>89</td>
<td>M</td>
<td>United States</td>
<td>Urine</td>
<td></td>
<td>High post void residual</td>
<td>(5)</td>
</tr>
<tr>
<td>1996</td>
<td>49</td>
<td>F</td>
<td>Canada</td>
<td>Neck lymph node</td>
<td>Non-Hodgkin lymphoma</td>
<td>None</td>
<td>(6)</td>
</tr>
<tr>
<td>1993</td>
<td>40</td>
<td>M</td>
<td>United States</td>
<td>Blood</td>
<td>AIDS, sacral ulcer, diarrhea</td>
<td>None</td>
<td>(7)</td>
</tr>
</tbody>
</table>

*Some published cases that were believed to be contamination or for which the organisms did not fit the laboratory profile of O. ureolytica were excluded.
†Antimicrobial drug sensitivity has varied among reports; some resistant organisms have been encountered (3–8).
By December 31, 2014, the Ebola epidemic in West Africa had resulted in treatment of 10 Ebola case-patients in the United States; a maximum of 671 travelers may arrive in clusters, we assumed that persons who are not health care workers (HCWs), 2) HCWs, and 3) medical evacuees. This categorization helps public health officials assess the potential risk for Ebola virus infection in individual travelers and the subsequent need for post-arrival monitoring (4).

We used the BED tool to calculate the estimated number of Ebola cases at any one time in the United States by multiplying the rate of new infections in the United States by length of stay (LOS) in hospital (Table). The rate of new infections is the sum of the rate of infected persons arriving in the United States calculated by using low and high estimates of both the incidence of disease in the 3 countries and the number of arrivals per month (Table). Calculating the incidence among arriving HCWs required estimating the number of HCWs treating Ebola patients in West Africa (online Technical Appendix 1, Tables 2–4). For medical evacuations of persons already ill from Ebola, we calculated low and high estimates using unpublished data of such evacuations through the end of December 2014.

Although only 1 Ebola case has caused additional cases in the United States (7), we included the possibility that each Ebola case-patient who traveled into the United States would cause either 0 secondary cases (low estimate) or 2 secondary cases (high estimate) (Table). Such transmission might occur before a clinically ill traveler is hospitalized or between a patient and HCWs treating the patient (7). To account for the possibility that infected travelers may arrive in clusters, we assumed that persons requiring treatment would be distributed according to a Poisson probability distribution. Using this distribution enables us to calculate, using the BED tool, 95% CIs any one time in the United States. Gomes et al. previously estimated the potential size of outbreaks in the United States and other countries for 2 different dates in September 2014 (2). Another study considered the overall risk for exportation of Ebola from West Africa but did not estimate the number of potential cases in the United States at any one time (3).

We provide for practicing public health officials a spreadsheet-based tool, Beds for Ebola Disease (BED) (online Technical Appendix 2, http://wwwnc.cdc.gov/EID/article/21/7/15-0286-Techapp2.xlsx) that can be used to estimate the number of Ebola patients expected to be treated simultaneously in the United States at any point in time. Users of BED can update estimates for changing conditions and improved quality of input data, such as incidence of disease. The BED tool extends the work of prior studies by dividing persons arriving from Liberia, Sierra Leone, and Guinea into the following 3 categories: 1) travelers who are not health care workers (HCWs), 2) HCWs, and 3) medical evacuees. This categorization helps public health officials assess the potential risk for Ebola virus infection in individual travelers and the subsequent need for post-arrival monitoring (4).

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Estimating Ebola Treatment Needs, United States

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To the Editor: By December 31, 2014, the Ebola epidemic in West Africa had resulted in treatment of 10 Ebola case-patients in the United States; a maximum of 4 patients received treatment at any one time (7). Four of these 10 persons became clinically ill in the United States (2 infected outside the United States and 2 infected in the United States), and 6 were clinically ill persons medically evacuated from West Africa (online Technical Appendix 1 Table 6, http://wwwnc.cdc.gov/EID/article/21/7/15-0286-Techapp1.pdf).

To plan for possible future cases in the United States, policy makers requested we produce a tool to estimate future numbers of Ebola case-patients needing treatment at

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