Read the following articles on the *E. coli* O157:H7 outbreak in Milwaukee.


**Questions**

1. What was the odds ratio of persons who ate watermelon and becoming ill? (2 points)
   - a) 8
   - b) 15
   - c) 800
   - d) 62

2. What is the term that means a pathogen is transferred from one food item to another food item? (3 points)
   - a) sabotage
   - b) cross-contamination
   - c) incubation period
   - d) mode of infection
   - e) bio-terrorism

3. Give two examples of the above. (2 points each)
4. Why are antibiotics discouraged to treat *E. coli* O157:H7 infections in children? (2 points)

5. One of the articles discusses confirmed cases, probable cases, and possible cases. Investigators determine these categories by defining: (2 points)

   a) the incubation period
   b) the source of exposure
   c) the mode of transmission
   d) the case-definition

6. Write an example of this for confirmed case-patients that the investigators in this outbreak may have used. (5 points)

7. What is the case-fatality rate of this outbreak, using the combined number of confirmed and probable case-patients. (4 points)

   a) 0.14%
   b) 0.18%
   c) 1.61%
   d) 0.16%
8. Calculate the odds ratio given the following data. (4 points)

<table>
<thead>
<tr>
<th></th>
<th>Ate watermelon</th>
<th>Did not eat watermelon</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>72</td>
<td>115</td>
<td>187</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>122</td>
<td>127</td>
</tr>
<tr>
<td>Total</td>
<td>77</td>
<td>237</td>
<td>314</td>
</tr>
</tbody>
</table>

a) 15.3  
b) 14.4  
c) 9.8  
d) 18.7

Tiebreaker

Match the disease with mode of transmission.

1. ___ Hepatitis A  
   A. Tick-borne
2. ___ Hepatitis B  
   B. Blood/sexual
3. ___ HIV  
   C. Food-borne/fecal-oral
4. ___ E. coli O157:H7  
   D. Mosquito-borne
5. ___ West Nile Virus  
   E. Unknown
6. ___ Lyme Disease
7. ___ Kawasaki Disease
8. ___ Campylobacter
9. ___ Rocky Mountain Spotted Fever
10. ___ Malaria
Answer Key: “E. coli”

Questions

1. a
2. b
3. • Not washing hands after handling raw meat.
   • Using the same plate for handling raw and cooked meat.
   • Handling food items that will be served raw near raw meat using the same utensils, cutting boards.
   • Placing raw meat in refrigerator above foods that will be served raw, allowing juice from meat to drip onto other fruit.
4. Antibiotics are associated with increasing the risk of Hemolytic Uremic Syndrome in children.
5. d
6. Confirmed case-patient: Persons who ate at the Sizzler’s restaurant between July 14 and July 21 who became ill within 10 days with diarrhea (watery or bloody), abdominal cramps, nausea and/or vomiting and had a positive stool culture for *E. coli* O157:H7.
7. d
8. a

Tiebreaker

1. C
2. B
3. B
4. C
5. D
6. A
7. E
8. C
9. A
10. D