



# Clinical Update

## For Telephone Triage Nurses

September 2015

Page 1 of 2

### In This Issue

Food-borne Illness

Salmonella

How to Handle Triage Calls about Exposure

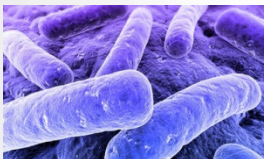
Prevention

### Did You Know...?

✓ There are ~ 48 million cases of food-borne illness annually in the US.

Every year:

- ✓ 1 in 6 people get sick.
- ✓ 128,000 are hospitalized.
- ✓ 3,000 die. (CDC)



Salmonella Bacteria

### Salmonella Outbreak and Food-borne Illness

September is National Food Safety month. Ironically, on September 3, the CDC and FDA announced a large multistate outbreak of food-borne illness from *Salmonella*-contaminated cucumbers. At this time, there are 481 people ill in 31 states including 91 hospitalizations and 2 deaths (CDC). Food recalls due to bacterial contamination have been newsworthy items with increasing frequency over the recent years.

#### Food-borne Illness

Both viruses and bacteria can cause food-borne illness. Viral causes include Noroviruses and Hepatitis A. Noroviruses are the leading cause of food-borne illness. Bacterial causes include *Salmonella*, *Campylobacter*, *Shigella*, and *E.Coli* 0157. A more complete list of frequent organisms that cause illness in the US, along with onset, symptoms and duration is at: <http://www.fda.gov/food/resourcesforyou/consumers/ucm103263.htm>.

Exposure to food pathogens may cause varying degrees of illness, from mild symptoms to severe symptoms. Hospitalization may be required due to dehydration or other complications. High-risk patients for food-borne illness are infants and young children < 5 as well as the elderly (age > 65 years). Pregnant women are also more vulnerable. Anyone with a weak immune system (including diabetics) is also at risk. For most healthy patients without risk factors, these organisms may cause a self-limited diarrheal illness that doesn't require treatment. Many healthy people may not even get sick.

Triage call center staff knows that when there's a public health alert that calls will increase. Fortunately, most calls are from the "worried well" concerned about possible exposure to a recalled food. *Salmonella* has been a cause of recalls frequently in the last year. So, what's the likelihood of someone getting sick with this organism? More importantly, how do we handle a call about someone who has eaten a recalled food and who may or may not be sick?

#### Salmonella

- **Definition:** Salmonellosis is a bacterial infection that can be caused by eating food contaminated with *Salmonella*. Main sources are undercooked meats, poultry and eggs, but can also include unwashed fresh produce. Animals (e.g., reptiles) and their environment can also harbor the bacteria.
- **Incidence:** *Salmonella* is estimated to cause 1 million cases of illness per year in the US. (CDC) *Salmonella* accounts for the most hospitalizations (64%) of food-borne illness outbreaks where there is a confirmed cause. It represents a substantial, but largely preventable, health burden in the US (See Figure 1).
- **Risk Factors:** High-risk groups for *Salmonella* infection are children < 5 years, adults > 65 and those with a weak immune system. Children under 5 years of age have the highest rates of infection of any age group, and they also are more likely to have a severe infection. In the current outbreak, over half the people sick are under 18.

# Clinical Update

## For Telephone Triage Nurses

September 2015

Page 2 of 2



- **Treatment:** Most healthy patients have self-limited illness and recover without treatment. However, diarrhea may be severe and require hospitalization to receive IV fluids. *Salmonella* infection may also spread to the bloodstream and other places in the body. Antibiotics are recommended only for those patients with serious illness (such as sepsis) and for high-risk patients (infants, weak immune system, etc).

### Asymptomatic Patients with Salmonella Exposure - How to Respond to Calls

- **Exposure to Salmonella:** No treatment for exposure. Antibiotics aren't prescribed for exposure. Reassure callers that most healthy patients do not get sick. Healthy patients that do get sick get a brief, self-limited gastroenteritis that lasts 4 to 7 days.
- **Response to Exposure:** Observe for possible onset of symptoms (diarrhea, fever, abdominal cramps) usually within 12 to 72 hours.

### Symptomatic Patients with Salmonella Exposure - How to Respond to Calls

- **Guideline:** Use the Diarrhea or Vomiting guidelines. Do not use the Food Poisoning guideline in the pediatric content set for these calls. Use the pediatric Food Poisoning guideline only for bacterial toxin type disease with rapid onset within 2 to 12 hours.
- **Triage and Disposition of Patients with Symptoms:**
  - The STCC guidelines deal adequately with anyone with suspected Salmonellosis. Use caution with high-risk patients (elderly, infants, pregnant women, and those with a weak immune system or chronic illness). Immune-compromised patients with fever should be seen now.
  - Healthy patients with or without fever: Provide reassurance and treat symptoms. Refer to office for mild symptoms for concerned patients.

### Preventing Food-Borne Illness

The risk of contracting a food-borne illness can be reduced by following four basic steps:



**CLEAN:** Hand-washing is key to preventing the spread of infections. In addition to hands, wash surfaces and utensils often while preparing food. Rinse or scrub fruits and veggies under running water.



**SEPARATE:** Separate raw meat from other food. Use separate utensils for raw meats.



**COOK:** Cook all meat and poultry thoroughly. Keep hot foods hot. Do not thaw frozen food at room temperature on a counter.



**CHILL:** Keep cold foods cold (avoid room temperature for these foods). Refrigerate leftovers promptly. Discard perishable foods that have been out of refrigeration over 2 hours.

### Resources:

[www.cdc.gov/salmonella](http://www.cdc.gov/salmonella)  
[www.cdc.gov/foodnet](http://www.cdc.gov/foodnet)  
[www.fda.gov](http://www.fda.gov)  
[www.foodsafety.gov](http://www.foodsafety.gov)

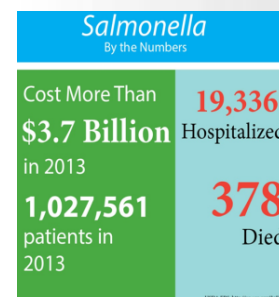


Figure 1

Salmonella by the Numbers

Source: [www.foodsafety.gov](http://www.foodsafety.gov)

Co-Author:  
Kelli Massaro, RN

Copyright 2015.  
Schmitt-Thompson  
Clinical Content

Barton Schmitt, M.D.  
David Thompson, M.D.