Antibiotic Use

Antibiotic resistance is a growing problem, both in the United States and across the world. The main driving factors behind antibiotic resistance are the overuse and misuse of antibiotics. In fact, the CDC and World Health Organization have labeled an infection called ‘*Clostridioides Difficile’* as the largest infectious threat in the world today – an infection that really is only contracted after a person has been on a course of antibiotics!

## What is Clostridioides Difficile?

In simple terms, Clostridioides Difficile, or “C Diff” is an intestinal infection occurring after someone on antibiotics has killed off normal bacteria colonizing the bowels and allowed this very hearty bacteria to invade. It releases toxins (*poisons*) that cause diarrhea, dehydration and abnormalities of salts in the blood. It can’t be treated with most antibiotics and is more and more resistant to the few that have worked in the past. It leads to death in many inflicted individuals, primarily older persons and those with other chronic diseases. There were about 500,000 cases and 30,000 deaths in the US alone from this infection last year!

## How can we avoid the spread of C Diff?

Simple – drastically decrease antibiotic use– save them for only well-documented bacterial infections.

## Do antibiotics pose other risks?

Yes - Persons taking antibiotics are at increased risk of getting a resistant infection later

They may cause many side effects, from allergic responses (hives, anaphylaxis, itching) to diarrhea, nausea, vomiting, seizures, anxiety, tendon rupture, headache and kidney and liver damage – just to mention a few. They may interact with medications in ways that can cause other problems or death.

## When will we use antibiotics?

Whenever a bacterial infection is documented and confirmed. The CDC has published and distributed very specific guidelines on how to appropriately diagnose bacterial infections. These typically cause local symptoms, fever and an increase in a type of White Blood Cells (WBCs) that fight bacteria. *Only when enough of these factors are present* are cultures necessary to confirm a bacterial infection and to identify the specific organism causing it.

Here are some examples:

## URINARY TRACT INFECTIONS (UTIs)

Diagnosing a UTI requires a combination of symptoms like *new* onset of pain with urination, urinating more often, blood in the urine, or pain/tenderness of the urinary tract *along with* fever or an increase in the specific type of white blood cells that attack bacteria. Research has shown convincingly that things like confusion, falls, agitation, bad smelling or cloudy urine and nonspecific symptoms we once felt were signs of a UTI *do not actually have any correlation*. This information has been available for providers to learn and share with patients and families for years, but acceptance by all parties is a slow, painful process. When we find bacteria in the urine without the other appropriate symptoms, it is called asymptomatic bacteriuria and would best be treated by increasing fluid intake.

## COLDS, FLU, SORE THROATS, BRONCHITIS and SINUS and EAR INFECTIONS

The vast majority of these infections are caused by viruses. **Antibiotics do not kill viruses**. For the overwhelming majority of common respiratory infections (>99%), antibiotics are *not* helpful and may add unnecessary costs and cause the harms listed above.

Thank you!

If you have questions about what criteria are associated with a bacterial, infection – ***ask us!***

If someone wants to start your or your family member on an antibiotic – *challenge them to prove it is a bacterial infection! You just may save their life.*

the CDC’s webpage: https://[www.cdc.gov/getsmart/community/about/should-know.html](http://www.cdc.gov/getsmart/community/about/should-know.html)