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**Infectious Disease
Red Flag Topics Update**

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Disclosures

- Advisory Board for Viiv Healthcare

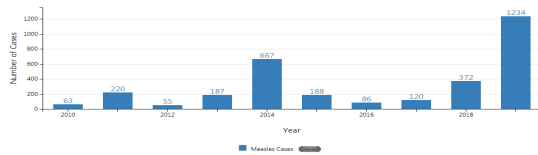
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Outline

- Measles Outbreak
- Hepatitis A Outbreak
- Shingles Vaccination
- Drug Resistant Hospital Acquired Infections
- Candida Auris
- Updates in Sexually Transmitted Infections
- Advances in HIV Prevention and Treatment
- Updates in Hepatitis C

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Measles Outbreak



- 1,234 cases of measles in 31 states (highest number since 1992) Jan-Aug-CDC 2019
- 125 hospitalized and 65 with complications
 - 75% linked to outbreaks in New York.
 - Majority of cases among unvaccinated
- **Vaccinate!** MMR vaccine at 12-15 months and 4-6 years.
- Before traveling
 - infants 8-11 months need 1 dose of measles
 - Children > 12 months needs 2 doses separated by 28 days
 - Teens and adults without immunity need 2 doses separated by 28 days

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Measles Clinical Features

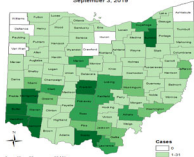


- Fever prodrome with malaise, cough, coryza and conjunctivitis
- Pathognomonic enanthem (Koplik spots) followed by maculopapular rash that spreads from head to trunk to extremities
- Rash appears 14 days after exposure
- Contagious from 4 days before to 4 days after rash disappears.
- Complications include otitis media, diarrhea, encephalitis, keratitis, myocarditis, SSPE
- If suspect, place patient in airborne isolation

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Hepatitis A Outbreak

Hepatitis A Outbreak Cases by County, Ohio, 2018-2019



Map created 09/10/19, Outbreak Prevention and Mitigation Investigation Team, Bureau of Infectious Diseases, Ohio Department of Health, 2019

- Multiple outbreaks around U.S. since 2015
- Statewide outbreak declared June 2018. (Ohio Department of Health 2019)
 - 82 counties with cases
 - 3291 cases between 1/2018-8/28/2019
 - 61% male
 - 2014 hospitalizations
 - 16 deaths
- Fecal-oral or intimate contact transmission
- High risk population:
 - People Who Use Drugs
 - Homeless
 - Incarcerated
 - Men Who Have Sex with Men
 - People with chronic liver disease
- Clinical Presentation
 - Nausea, vomiting, fever, anorexia, abdominal pain, dark urine, pale stools.
- Prevention and Treatment
 - Vaccinate!
 - Can give immune globulin for infant travelers < 6 months of age and travelers for whom vaccine contraindicated
 - For close personal contacts of persons with confirmed HAV infection
 - Give immune globulin and 1 dose Hep A vaccine

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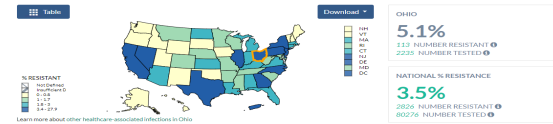
Shingles Vaccination

- Varicella Zoster Virus (VZV):
 - primary infection (varicella aka "chickenpox") characterized by vesicular lesions in different stage of development
 - Herpes Zoster-aka "shingle" characterized by unilateral vesicular eruption along dermatomal distribution
- Decline in VZV-cell mediated immunity regarded as major precipitant for VZV reactivation
 - 30-40% adults >55 years do not have detectable VZV-specific T cell responses
- Previous live attenuated vaccine ZVL (sold as Zostavax)
 - New recombinant vaccine RZV (sold as Shingrix) has higher efficacy
 - Requires 2 doses separated by at least 8 weeks.
 - About 11% experience side effects. Myalgia is most common.
- For population older 50 there was 96.2% reduction in risk of HZ (while ZVL protection was only 51% in older than 60).

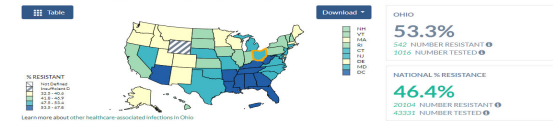
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Drug Resistant Hospital Acquired Infections

Carbapenem-Resistant *Enterobacteriaceae* spp. | CLABSI, CAUTI, SSI | Combined Years (2011-2014)



Methicillin-Resistant *Staphylococcus aureus* | CLABSI, CAUTI, SSI | Combined Years (2011-2014)

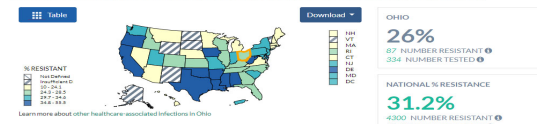


Centers for Disease Control 2019

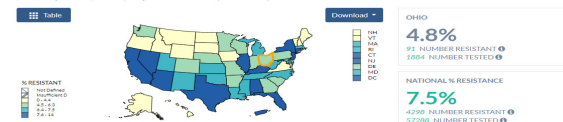
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Drug Resistant HAIs

MRSA with Community-associated Resistance Pattern | CLABSI, CAUTI, SSI | Combined Years (2011-2014)



MDR *E.coli* | CLABSI, CAUTI, SSI | Combined Years (2011-2014)



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