PIDPIC
SOT Working Group
9.30.14
New and Emerging

• Enterovirus D68 (EV-D68)
  – Cluster first reported in August from Kansas City and Chicago
    • Higher than usual rates of severe respiratory hospitalizations
      – 20 of 36 cases confirmed with EV-D68
  – Not new
    • original isolation of EV-D68 in California in 1962
    • National Enterovirus Surveillance System received 79 EV-D68 reports during 2009–2013
    • Small clusters of EV-D68 associated with respiratory illness were reported in the United States during 2009–2010
Current Epidemic

- From 8.5-9.29 443 people in 40 states and the District of Columbia with respiratory illness caused by EV-D68.
Cases

• Age range 6 weeks- 16 years (median 4-5)
• 70% had underlying asthma
• All patients had difficulty breathing and hypoxemia, 95% admitted to ICU
  – One pt required ECMO
• Only about 20% had wheezing and 22% with fever
• In Colorado, 9 children hospitalized with sudden onset of limb weakness
  – 4 have EV-D68 from nasal washes
Enterovirus

- Over 100 types
  - Clinical spectrum is broad, from respiratory, to GI, to febrile rash and neurologic
- Enteroviruses commonly circulate in summer and fall. We’re currently in middle of the enterovirus season, and EV-D68 infections are likely to decline later in the fall.
Testing/Treatment

• NP or OP for Enterovirus PCR
• Other specimens, rectal, stool, CSF
• No treatment available but in transplant patients with severe illness may try IVIg.
Influenza

• Influenza:
  – All pretransplant patients > 6mo
    • TIV or LAIV
  – All posttransplant patients > 6mo
    • QIV preferred but if not available TIV
    • 2 doses first season after transplant regardless of age
    • Consider 2 doses if enhanced immunsuppression previous 3 months
    • Consider 2 doses if recipient to be exposed to LAIV at school or home
  – All family members > 6mo
    • Preference given to QIV/TIV but LAIV not contraindicated
2014-2015 Composition

• Trivalent
  – A/California/7/2009 (H1N1)-like virus, an A/Texas/50/2012 (H3N2)-like virus, and a B/Massachusetts/2/2012-like (Yamagata lineage) virus

• Quadrivalent
  – + B/Brisbane/60/2008-like (Victoria lineage)

• Both IIV and LAIV have both tri and quadrivalent
LAIV

• ACIP has now issued preference of LAIV for children 2-8yrs
• LAIV recipients shed attenuated virus
• Risk of infection from exposure to vaccine virus not known
• Highest shedding shown to be day 2, with mean days of shedding of 7
• It is reasonable to assume that transplant recipient who has received flu vaccine has some immunity to the LAIV virus
LAIV

• It is important to educate families of the potential risk but to reinforce that the risk is not known
• If a family member gets LAIV, good handwashing and cough hygiene, as well as potentially avoiding very close contact for one week may reduce the risk of exposure
• If a recipients school is doing school wide LAIV administration
  – The family may want to take extra precautions when the child’s class is vaccinated including good handwashing and potentially not attending school.
  – During campaigns the family may also consider not having the child attend large group settings such as assemblies, plays, and other school wide events
  – It does not seem necessary to avoid after school activities and other social events
RSV Prophylaxis

– Recommended for high risk groups
  • Infant and children < 24mo
  • Immediate posttransplant

– Recommended monthly synagis (Nov-Mar) for:
  • Candidates< 24 mo
  • Posttransplant <24 mo
RSV and Parainfluenza

• Recipient
  – If symptomatic and requiring hospitalization: Inhaled ribovarin before transplant and IVIg (400mg/kg) after transplant x1
  – If symptomatic and not hospitalized no interventions, if transplant becomes available and still symptomatic, IVIg and ribovarin if feasible:
  – if no symptoms at time of organ offer, no intervention

• Donor positive
  – no interventions
Respiratory Viruses

• **Rhinovirus and Human MetaPneumovirus**
  – Recipient: If symptomatic: before and after transplant IVIg (400mg/kg) x1
  – Donor positive, no interventions

• **Influenza**
  – Recipient: If symptomatic: oseltamivir (5 days can straddle transplant)
  – Donor positive: start oseltamivir in donor and finish a total of 5 day course in recipient
Respiratory Viruses

• Adenovirus: delay transplant
• If no time to test and identify the infecting organism and patient symptomatic, send respiratory PCR and give IVIg 400mg/kg

• Symptoms are objective evidence of URI/LRI no fever. ? CXR pretransplant?
Respiratory Infections 12.13-9.14

31 infections
17 kidney
12 Liver
2 heart