Background

The widespread use of antibiotics is one of the factors driving the emergence of antimicrobial resistant pathogens. When preventive measures are compromised, infections, such as the common cold and seasonal influenza, can spread among individuals in close contact.
Children who are cared for in childcare facilities are at an increased risk for acquiring upper respiratory infections. In addition, childcare facilities sometimes misuse sick-child exclusion policies by unnecessarily excluding children who have had certain illnesses or symptoms, and directors of childcare facilities may require that ill children take antibiotics before they are readmitted.

During 2012, the Department of Health Get Smart Program, in collaboration with Office of Child Development and Early Learning (OCDEL) and the Department of Public Welfare, formed a Sick-Child Exclusion Policy Advisory Group, which first met at Penn State Milton S. Hershey Medical Center on May 18, 2012. The Sick-Child Exclusion Policy Advisory Group included experts in pediatric medicine, directors of childcare centers, public health officials, a representative from Child Care Aware of America, and the OCDEL.

The group completed a formal report in October 2013, which was updated in 2014 to reflect recent recommendations from the American Academy of Pediatrics. The group’s main objective was to develop practical guidance for implementing model childcare health policies as discussed by M’ikanatha and Kotch in the Journal of Infection Control and Hospital Epidemiology.1,2

Specifically, the group intended to:

- Identify events that result in confusion when implementing model sick-child exclusion policies and those events that do not fully meet exclusion criteria.
- Suggest quality improvement action based on best practices from clinician and childcare director’s perspective.
- Provide practical ways to address common problems based on childcare directors’ experiences.
- Review childhood illnesses that should result in exclusion based on state regulations and guidelines reference by the American Academy for Pediatrics (AAP) Model Childcare Health Policies.3,4,5

The advisory group’s main objective was to develop practical guidance for implementing model childcare health policies.
Summary

Introductory remarks were made by the chair of the group, Cheston Berlin, MD. Daniel Hoberg, statistician for Pennsylvania Department of Public Welfare (DPW), presented data from pre- and post-intervention surveys evaluating interventions promoting appropriate use of antibiotics in childcare settings. The surveys were administered to three groups.

One variable group received webinar tutorials regarding antibiotic use in children and a children’s book aimed at informing child and parent of proper antibiotic use, another variable group only received the children’s book, and the control group did not receive any intervention. The survey included 904 providers from regulated centers and family day care centers. The pre-intervention survey response rate was 42%, or about 120 in each group. Post-surveys were sent out 9 months after the pre-survey. Participation in the webinar series was low; with higher response rate among childcare centers compared to in-home childcare centers.

Dr. Sharon Meropol led a discussion on various childhood symptoms, including fever, diarrhea, nasal discharge, and conjunctivitis, and their relevance to continued participation in a childcare setting. Childcare providers should evaluate for the presence of fever when the child is lethargic or shows behavior changes.

She discussed the challenges in identifying fever in a child. Oral temperatures can be inaccurate for children under four years of age, and rectal temperatures should be taken only with specific training and permission from guardians. The axillary (under arm) temperature can be inaccurate, if device instructions are not followed.

The American Academy of Pediatrics recommends temporary exclusion when a child has fever (temperature above 101°F [38.3°C] orally, above 102°F [38.9°C] rectally, or 100°F [37.8°C] or higher taken armpit or measured by an equivalent method) and behavior change or other signs and symptoms of illness (e.g., sore throat, rash, vomiting, diarrhea).
An unexplained temperature above 100°F (37.8°C) armpit or 101°F (38.3°C) rectally in a child younger than six months should be medically evaluated. Any infant younger than two months of age with any fever should get urgent medical attention. This advisory group will follow these recommendations.

Children with uncontrolled diarrhea that is causing increased stool not contained in a diaper and toilet trained children if diarrhea is causing soiled clothes. Diapered children should be excluded if stool frequency exceeds two or more stools for that child. Exclusion for some infectious organisms is required until certain guidelines are met.

Color of nasal discharge is irrelevant and viral illnesses (such as colds) do not require antibiotics. A diagnosis of sinusitis usually requires symptoms not improving for 10 days. Conjunctivitis (or “pink eye”) generally resolves without treatment in 5 to 6 days, thus does not require antibiotics. Frequent hand washing and sanitation of surfaces are important to interrupt spread. A child with nasal discharge and/or conjunctivitis should be permitted to attend the childcare setting and should not be required to have an antibiotic prescription.

Connie Lydon, childcare director, spoke about her experience dealing with concerned parents. She suggested that directors should be respectful to parents, thank them for gathering information, review information provided by the parent, explain DPW guidelines, and provide center policies to help parents understand exclusion or inclusion decisions.

Nicole Hackman, MD, a pediatrician noted that parents may perceive antibiotics as a ‘ticket’ back into childcare and may pressure pediatricians to prescribe antibiotics unnecessarily. The DPW regulations do not specify the treatment required, only that a medical practitioner confirms in writing that the sick child is well enough to return to care. The perception that antibiotics are required to return to care is manifested through the parent’s concern.

Many childhood illnesses can be prevented through vaccinations and proper hand washing techniques. Childcare facilities should require written documentation of vaccinations for each child. Dr. Hackman highlighted the evidence that scheduled hand washing throughout the day and after particular activities (i.e. toileting and diapering) is an effective method for controlling the spread of illnesses. Facilities should have specific hand washing requirements and times for staff and children, including infants.
As a possible solution, a childcare facility could provide a ‘sick’ facility to enable mildly ill children to attend childcare. However, a ‘sick’ facility or room may be operationally difficult. If a ‘sick’ facility or room exists, DPW assumes this room is an option as long as the child is not demonstrating symptoms of an excludable disease/condition.

Facilities that choose to provide services of a ‘sick’ room would need to dedicate measured space and staff for this purpose. This space could impact their capacity, enrollment numbers, and staff-to-child ratios. The group recommends that honesty with parents about exclusion (such as lack of staffing to accommodate sick child). Candor can maintain good relationship with parents.

Andrea Zaenglein, MD, a dermatologist noted that MRSA/staph infections and scabies should be diagnosed and treated by a healthcare provider. If scabies is symptomatic, the whole childcare center should be cleaned by removing washable items and sanitizing and soaking cloth toys. Unwashable toys should be kept in a sealed bag for at least 4 days.7 Childcare centers are required to post an information sheet on symptoms during an outbreak.

Jennifer Sears, an epidemiologist, gave an example of Philadelphia Department of Public Health Childcare Settings Initiative’s goal childcare centers a manual about antibiotics, exclusion policies, and other public health concerns.

According to the DPW regulations, childcare facilities must obtain current information from parents on children’s immunization status.

According to the DPW regulations, childcare facilities must obtain current information from parents on children’s immunization status in order to protect the health of all children in care. Facilities must obtain written documentation from parents who choose not to immunize children based on religious or strong personal belief. If the decision not to
immunize is based on medical need, the parent must submit to the facility a written documentation from the child’s physician, physician’s assistant, or CRNP.

Scheduled and routine hand washing should be used to prevent childhood illnesses. Use of alcohol based hand sanitizers should be used as a supplement, not a replacement, for traditional hand washing. How and when child washing occurs is important. DPW requires hand washing for children and adults before meals and snacks, after toileting, and after diapering. Pennsylvania Keys provides training for staff of childcare centers on hand hygiene.

Conclusions

The meeting resulted in specific recommendations from the Advisory Group on model sick-child exclusion policies. These recommendations are consistent with current AAP recommendations and are as follows. These recommendations should be used as a resource when implementing model sick-child exclusion policies and those events that do not fully meet exclusion criteria.

- **Fever Exclusion:**
  - Temperatures above:
    - Orally - 101°F [38.3°C]
    - Rectally - 102°F [38.9°C]
    - Armpit - 100°F [37.8°C] or measured by an equivalent method) and behavior change or other signs and symptoms of illness (e.g., sore throat, rash, vomiting, diarrhea). Presence of fever alone should not automatically result in exclusion for children and infants >6 months.

- **Diarrhea Exclusion:**
  - A child with uncontrolled diarrhea that is not contained in his or her diaper or clothes
  - Toilet-trained children if diarrhea is causing soiled clothing

- **Nasal Discharge and Conjunctivitis:**
  - Inclusion or exclusion should not be dependent on antibiotic prescriptions; often both are viral, thus not requiring antibiotics
  - Color of nasal discharge is not an indicator of severity of illness and shouldn’t be used to determine inclusion/exclusion

- **MRSA/staph infections and scabies.**
• Diagnosed and treated by a doctor
• Skin lesion on exposed surface should be kept covered with waterproof dressing
• If scabies is present, the childcare center and its toys/linens should be cleaned

• Childcare facilities should require written documentation of vaccinations for every child and staff member.
• To protect the children in the childcare facility, staff should be required to have current pertussis and flu vaccination.

• Facilities should have specific hand washing requirements and times for staff and children/infants.

Glossary
Sick-Child Exclusion Policies: Policies written by childcare directors/staff that define exclusions of care for children when sick based on illness, symptoms, and course of illness.

Best Practices: The most updated scientific findings on a topic based on research and use.
AAP: American Academy of Pediatrics
DPW: Pennsylvania Department of Public Welfare

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References
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