effects were identified by ICD codes from the electronic health record (EHR). In the prospective cohort, a stratified sample of caregivers were contacted by telephone to complete two structured interviews, one at 5–10 days and one at 14–20 days post diagnosis. At the second interview, the caregiver was asked about the occurrence of diarrhea, rash, upset stomach and vomiting. Propensity-score based full matching was conducted to obtain estimates adjusted for patient and provider characteristics.

Results. Overall, 1038 (3.5%) of the 30086 children in the restrospective cohort experienced an adverse effect that was captured in the EHR. and 599 (28%) of the 2085 children included in the prospective cohort reported an adverse effect. See the table for analysis results.

	Raw, %		Adjusted analysis				
Cohort	Narrow-spectrum	Broad-spectrum	Risk difference % (95% CI)		p-value	Risk Ratio (95% CI)	
EHR	3.3%	4.4%	-1.3	(-2.0, -0.5)	<0.001	0.72	(0.61, 0.85)
Caregiver report	25%	36%	-12.2	(-17.2, -7.3)	<0.001	0.67	(0.57, 0.78)

Conclusion. Narrow-spectrum antibiotics were associated with a reduced risk of adverse effects compared with broad-spectrum antibiotics in both cohorts. The rate of adverse effects observed in EHR data was nearly 10-fold lower than the rate of patient-reported adverse effects.

Disclosures. **T. Zaoutis**, Astellas: Consultant, Consulting fee; Merck: Grant Investigator, Research grant; nabriva: Consultant, Consulting fee

1607. Impact of Multiplex Polymerase Chain Reaction Testing for Respiratory Pathogen Detection in Pediatric Patients

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Background. Viral pathogens are a leading cause of respiratory infection in the pediatric population. In August 2015, Williamson Medical Center implemented a respiratory panel (RP) that enables rapid detection of 20 common pathogens by multiplex polymerase chain reaction. Utilization of the RP was reviewed to assess the impact of the test on healthcare and antimicrobial utilization.

Methods. A retrospective chart review was conducted of all patients aged 0 to 17 years with RP specimens collected August 2015 through December 2016. An evaluation of the impact of RP results was completed through review of duration or change in antimicrobial therapy, change in patient management, and avoidance of further workup, antimicrobial therapy, or hospital admission. A subgroup analysis was performed for patients less than 60 days of age.

Results. Two hundred and ninety-five pediatric patients had a RP specimen collected during the evaluation timeframe. Ninety-six percent of tests were appropriate based on symptoms and 49% of RP results changed patient management (Table 1). RP result did not change management in any patients greater than 10 years of age. A pathogen was identified in 66% of specimens, with rhinovirus/enterovirus (53.6%) and respiratory syncytial virus (20.5%) being the most common viruses isolated. The use of the RP was highest in the months of August through December, with viral pathogen isolation being highest in these months as well. In patients less than 60 days of age (n = 40), the RP result changed management in 22 (55%) cases, including 3 avoided admissions, 12 avoided antibiotic courses, and 7 avoided lumbar punctures.

Table 1: Respiratory Panel Collection 0–17 Years of Age

Samples Collected	295
Test Appropriate Based on Symptoms	284 (96%)
Pathogen Detected	196 (66%)
Result Changed Management	145 (49%)
Avoid Admission	44
Reduce Further Procedures/Workup	33
Avoid Antibiotics	89
Narrow/Decrease Antibiotic Duration	20
Target Antimicrobial Therapy	14

Conclusion. The use of a RP was beneficial in this pediatric population to decrease hospital admissions, avoid further unnecessary procedures, avoid unnecessary antibiotic therapy, decrease duration of antibiotics and target antimicrobial therapy. Further consideration should be given to implement an algorithm for use.

Disclosures. **M. F. Williams**, BioFire Diagnostics: Consultant, Speaker honorarium; Joint Commission Resources: Consultant, Speaker honorarium

1608. Cost Analysis of an Antimicrobial Stewardship Program (ASP) Protocol for Adherence to the 2014 American Academy of Pediatrics (AAP) Palivizumab Prophylaxis Recommendations in a Freestanding Children's Hospital

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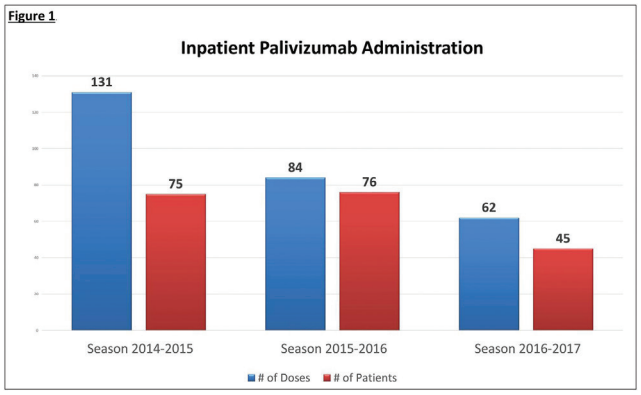
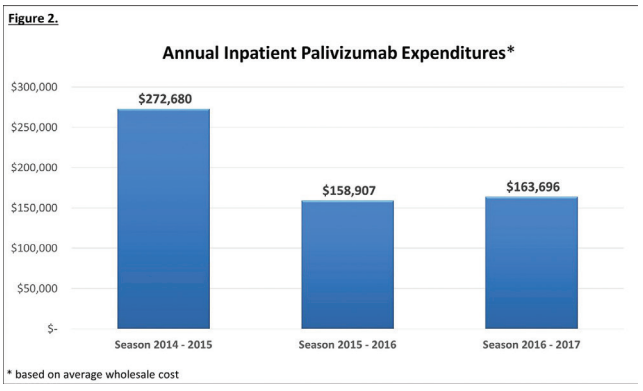
Background. In 2014, the AAP updated guidelines for administration of palivizumab in children at high risk of respiratory syncytial virus (RSV) disease. The updated guidelines defined high risk patient populations and recommended that eligible inpatients not receive monthly palivizumab prophylaxis but may receive a dose 24–72 hours prior to discharge. In a freestanding children's hospital, the ASP developed a protocol that ensured compliance with the adoption of these guidelines through prospective audit of all palivizumab orders prior to medication dispensing. Review of 2 seasons of palivizumab inpatient protocol dosing was compared with historical baseline drug utilization.

Methods. All palivizumab orders required an indication that was reviewed by a pharmacist who confirmed the patient's medical condition(s) and eligibility prior to medication dispensing. The pharmacist verbally reconciled any discrepancies with the ordering provider and if patient did not meet AAP guideline criteria, two members of the ASP reviewed the order and patient's medical record to determine inpatient eligibility for palivizumab administration. Two RSV seasons of palivizumab inpatient dosing were compared with the baseline year prior to protocol adoption to analyze impact of the protocol on direct costs of palivizumab to the organization.

Results. Two hundred and seventy-seven inpatient doses of palivizumab were reviewed from November 1, 2014 to April 30, 2017. After implementation of the palivizumab protocol, the number of doses administered decreased each RSV season (see Figure 1). This resulted in a decrease in drug expenditures in each of the post implementation seasons (see Figure 2). The ASP reviewed orders for 10 patients during the 2015–2016 season and 16 patients during the 2016–2017 season for unapproved indications. Hospital-acquired RSV infections remained stable after protocol implementation and isolation recommendations were unchanged.





Conclusion. In a freestanding children's hospital, an ASP driven protocol reduced palivizumab administration to inpatients in keeping with AAP guidelines while reducing direct pharmacy costs and without an increase in hospital-acquired RSV infections during the evaluation period.

Disclosures. **All authors:** No reported disclosures.