

## INTRODUCTION

Palivizumab is used to prevent high risk neonatal patients from contracting respiratory syncytial virus (RSV). The American Academy of Pediatrics (AAP) updated the palivizumab prophylaxis prescribing guidelines between the 2013-2014 and 2014-2015 RSV seasons.<sup>1,2</sup>

Cabell Huntington Hospital’s current protocol of palivizumab administration corresponds to AAP 2014 palivizumab prescribing guidelines.<sup>1,2</sup>

- Palivizumab dosing
  - Weight based: 15 mg/kg
- Repeat dosing:
  - Monthly prophylaxis during RSV season (up to 5 monthly doses).

Patients received one dose of palivizumab prior to discharge. Subsequent doses given outpatient are unknown.

## OBJECTIVES

- Primary objective:**
- To determine if providers followed current guidelines for prescribing palivizumab administered during 2 subsequent RSV seasons.
- Secondary objective:**
- To determine how many unnecessary doses of palivizumab were given and the corresponding cost burden.

## METHODS

This IRB approved retrospective cohort study collected information on 88 neonatal patients admitted to Cabell Huntington Hospital, Huntington, West Virginia from November 4, 2013 to March 10, 2015.

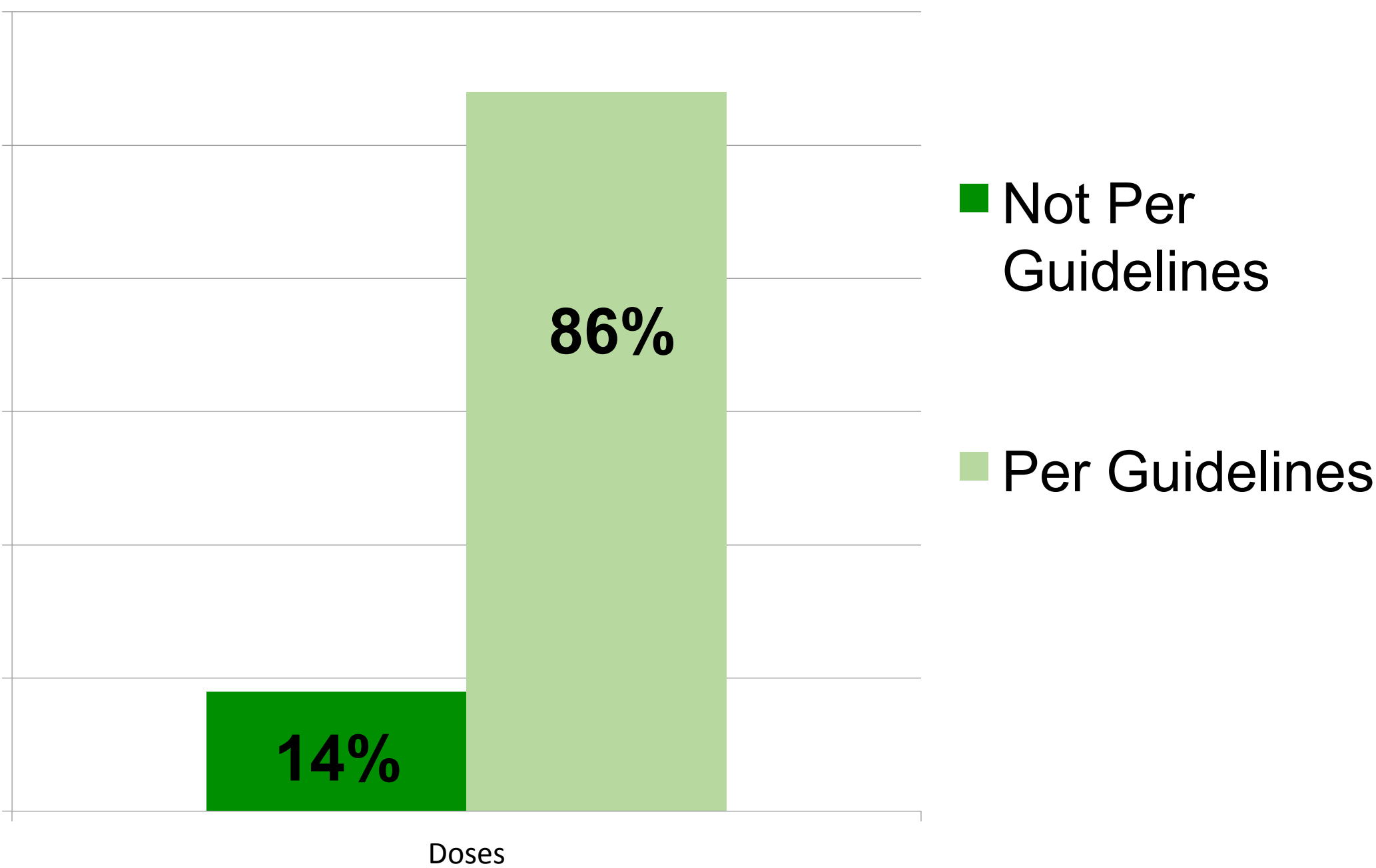
Qualifying patient’s date of birth, date and dose of palivizumab, gestational age at birth, sibling status, oxygen requirements, vasopressor therapy, and the medical conditions bronchopulmonary dysplasia and respiratory distress syndrome were documented on the data sheet.

## METHODS

- Inclusion Criteria:**
- Patients admitted between November 4, 2013 to March 10, 2015 to at least one of the following units: Neonatal ICU or Pediatric ICU receiving a dose of palivizumab.
- Exclusion Criteria:**
- Neonates who did not receive the Palivizumab vaccine.

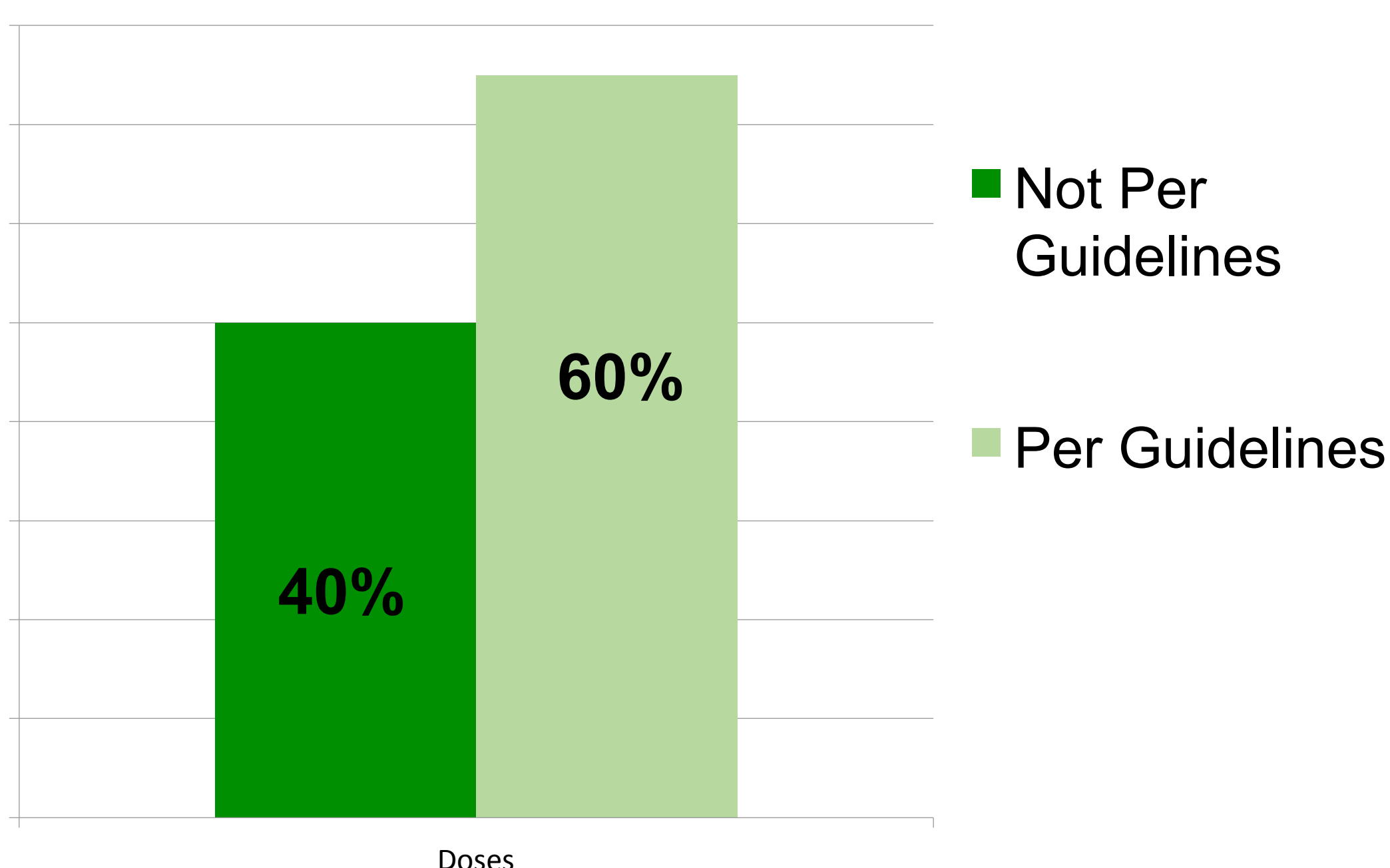
## RESULTS

Palivizumab Administration Per **2010** Guidelines During 2013-2014 RSV Season

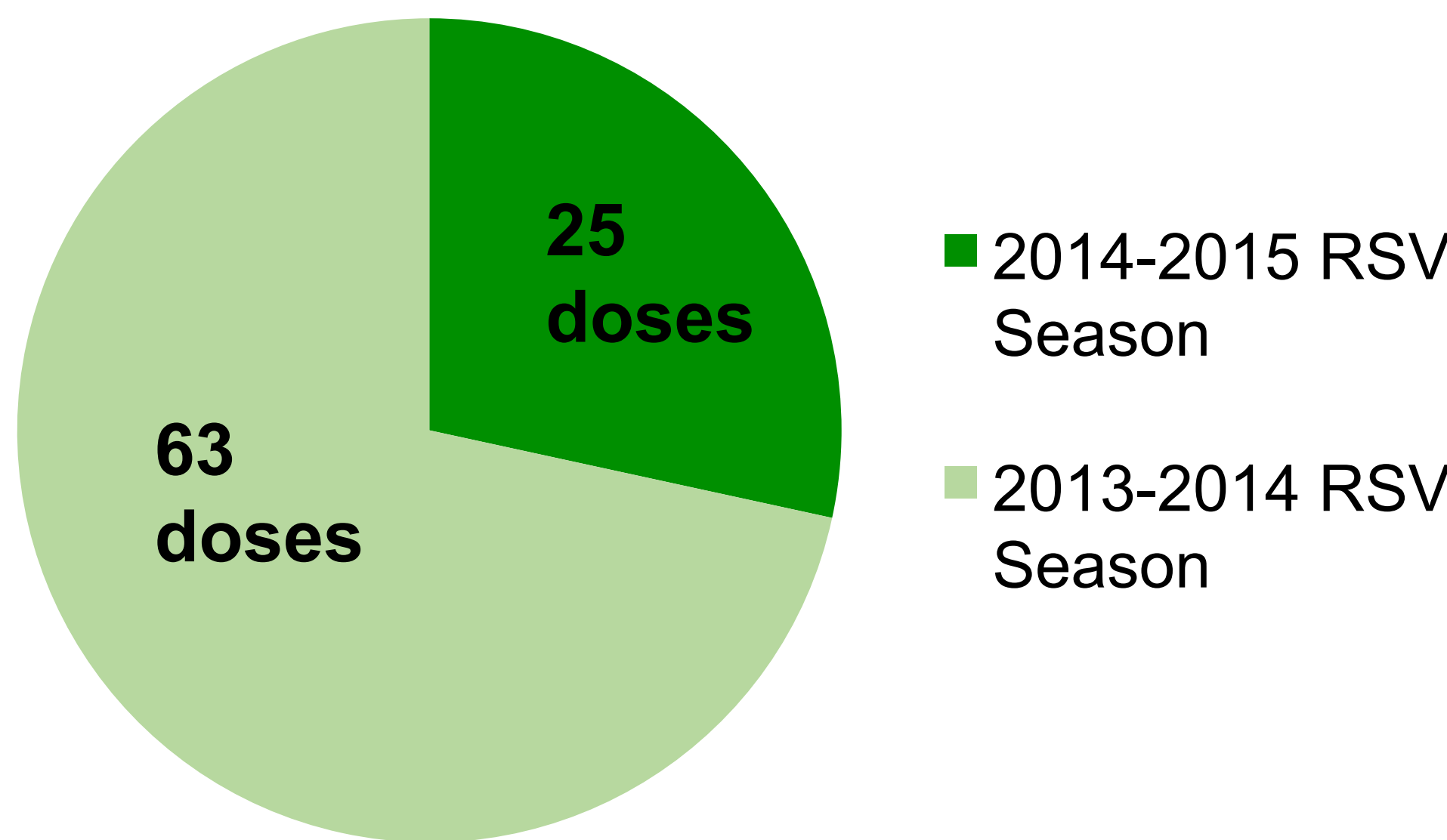


Palivizumab (Synagis ®) Cost	
Synagis ® 50 mg vial	\$1,333.87
Synagis ® 100mg vial	\$2,518.72
Total Cost of Synagis ® 2013-2014 RSV Season	\$81,358.76
Total Cost of Synagis ® 2014-2015 RSV Season	\$31, 714.84

Palivizumab Administration Per **2014** Guidelines During 2014-2015 RSV Season



Total Palivizumab Doses Administered



## Statistical Analysis

		Value	LL 95% CI	UL 95% CI
Total palivizumab doses administered		4	1.22	13.338
Odds Ratio (OR)		4	1.22	13.338
Relative Risk (RR)		1.429	1.045	2.032
Yates Corrected Chi-Square	5.554, df= 1, p=0.018			

## RESULTS

There were a greater number of total doses of palivizumab given in the 2013-2014 RSV season than the 2014-2015 RSV season (63 doses vs. 25 doses) suggesting that overall prescribing for palivizumab decreased after implementation of the 2014 AAP guidelines. The percentage of doses given per AAP guidelines significantly decreased from the 2013-2014 RSV season to the 2014-2015 RSV season (86% vs. 60%). Two out of ten palivizumab doses given in the 2014-2015 RSV season did not meet either the 2010 or the 2014 AAP guidelines.

## CONCLUSIONS

Prescribers followed the previous 2010 AAP guidelines more often than the updated AAP guidelines when utilizing palivizumab in neonates. This may be due to lack of familiarity with the AAP guidelines or concern that the updated AAP guidelines are too stringent. More research is needed to review patient outcomes, such as RSV diagnosis, re-admission, and administration of follow-up doses of palivizumab.

## REFERENCES

- Updated guidance for palivizumab prophylaxis among infants and young children at increased risk of hospitalization for respiratory syncytial virus infection. Pediatrics. 2014;134(2):415-20.
- Zembles TN, Gaertner KM, Gutzeit MF, Willoughby RE. Implementation of American Academy of Pediatrics guidelines for palivizumab prophylaxis in a pediatric hospital. Am J Health Syst Pharm. 2016;73(6):405-8.

## DISCLOSURES & ACKNOLEDGEMENTS

Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have direct or indirect interest in the subject matter of this presentation:

- Heather Carico: Nothing to Disclose
- Derek Grimm: Nothing to Disclose
- Leesa Prunty: Nothing to Disclose