

Supplemental Digital Content Table 1 – Text of vignettes contained in survey

<b>Condition</b>	<b>Antibiotic indicated?</b>	<b>Vignette text</b>
Sinusitis	Yes	Mrs. S is a 35 year-old woman who presents with 15 days of nasal congestion. She has had facial pain and green nasal discharge for the last 12 days. She is afebrile. On physical examination, she has no fever and the only abnormal finding is maxillary tenderness on palpation. She is otherwise healthy, except for mild obesity. She is on no medications, except for an over-the-counter decongestant. She has no drug allergies.
URI (intermediate symptoms)	No	Mr. M. is a 56 year-old man who presents to you with 6 days of non-productive cough, nasal congestion, and green nasal discharge. He has had intermittent fevers as high as 100.8 measured at home. His physical examination is normal except for rhinorrhea. He is otherwise healthy, except for chronic osteoarthritis of the right knee. He has no drug allergies.
URI	No	Mr. V. is a 42 year-old man who presents to you with 5 days of non-productive cough, rhinorrhea, nasal congestion, and headache. He has had intermittent fevers as high as 100.9 measured at home. His physical examination is normal except for edematous nasal mucosa. He is otherwise healthy, except for hypertension for which he is being treated with hydrochlorothiazide. He has no drug allergies.
Pneumonia	Yes	Mr. W is a 58 year-old man who presents with 4 days of cough productive of yellow sputum for the past 4 days. His symptoms started 4 days ago with rhinorrhea and productive cough, along with fevers to 101. He has normal vital signs and a normal exam except for some crackles over the left lower lobe of his lung. You obtain a chest x-ray which is notable for an infiltrate in the left lower lobe. He is otherwise healthy except for some chronic back pain for which he take naproxen. He has no drug allergies.
Bronchitis (intermediate symptoms)	No	Mrs. G is a 64 year-old woman who presents with 4 days of a cough productive of yellow sputum. Her symptoms started 4 days ago with rhinorrhea and productive cough, along with fevers to 101 for 2 days which have since resolved. She has normal vital signs, looks well-hydrated, and has a normal exam except for crackles over the left lower lobe of her lung. You obtain a chest x-ray, which shows no infiltrates or effusions. She is otherwise healthy except for hypercholesterolemia for which she is

		being treated with atorvastatin. She has no drug allergies.
Bronchitis	No	Mrs. L is a 61 year-old woman who presents with 4 days of a cough productive of yellow sputum. Her symptoms started 4 days ago with rhinorrhea and productive cough. She initially had fevers as high as 101 for 2 days, but those have now resolved. In the office, she has normal vital signs and a normal physical examination. She is otherwise healthy except for high cholesterol for which she is being treated with atorvastatin. She has no drug allergies.
Pharyngitis – Centor score 4	Yes (with testing or without testing for GAS)	Mr. K is a 24 year-old man who presents to your office for complaints of sore throat, fever, and headache. His symptoms started 2 days ago with acute onset of sore throat and fever to 102.2. He has had no cough. His physical examination is normal, except for the presence of tonsillar exudates and some tender anterior cervical lymphadenopathy. He is otherwise in good health, and is on no medications except for ibuprofen for fever. He has no drug allergies.
Pharyngitis – Centor score 2	Yes (but only if test positive for GAS)	Ms. E is a 22 year-old woman who presents to your office for complaints of sore throat, fever, and headache. Her symptoms started 2 days ago with acute onset of sore throat and fever to 102.2. She also has a non-productive cough. Her physical examination is normal, except for the presence of tonsillar exudates. She has no cervical lymphadenopathy. She is otherwise in good health, and is on no medications. She has no drug allergies.
Pharyngitis – Centor score 0	No (and should not test for GAS)	Mr. P is a 26 year-old man who presents to your office for complaints of sore throat, headache, and non-productive cough. His symptoms started 2 days ago with acute onset of sore throat. He has been afebrile. His physical examination is normal, except for some pharyngeal erythema. He is otherwise in good health, and is on no medications except for acetaminophen for his sore throat and fever. He has no drug allergies.

Supplemental Digital Content Tables 2a and 2b – Comprehensive ARI management based on response to vignettes in physicians’ offices (2a) versus retail clinics (2b), stratified by ARI type

**Physician’s offices**

	<b>ARI Condition Type</b>		
	<b>Sinusitis/URI</b>	<b>Pneumonia/Bronchitis</b>	<b>Pharyngitis</b>
	Comprehensive ARI management (%)		
<b>Antibiotic indicated</b>	78	<b>70*</b>	<b>89</b>
<b>Intermediate</b>	76	<b>47</b>	<b>77</b>
<b>Antibiotic not indicated</b>	94	94	<b>47</b>

**Retail Clinics**

	<b>ARI Condition Type</b>		
	<b>Sinusitis/URI</b>	<b>Pneumonia/Bronchitis</b>	<b>Pharyngitis</b>
	Comprehensive ARI management (%)		
<b>Antibiotic indicated</b>	87	<b>53</b>	<b>97</b>
<b>Intermediate</b>	82	<b>77</b>	<b>91</b>
<b>Antibiotic not indicated</b>	95	96	<b>26</b>

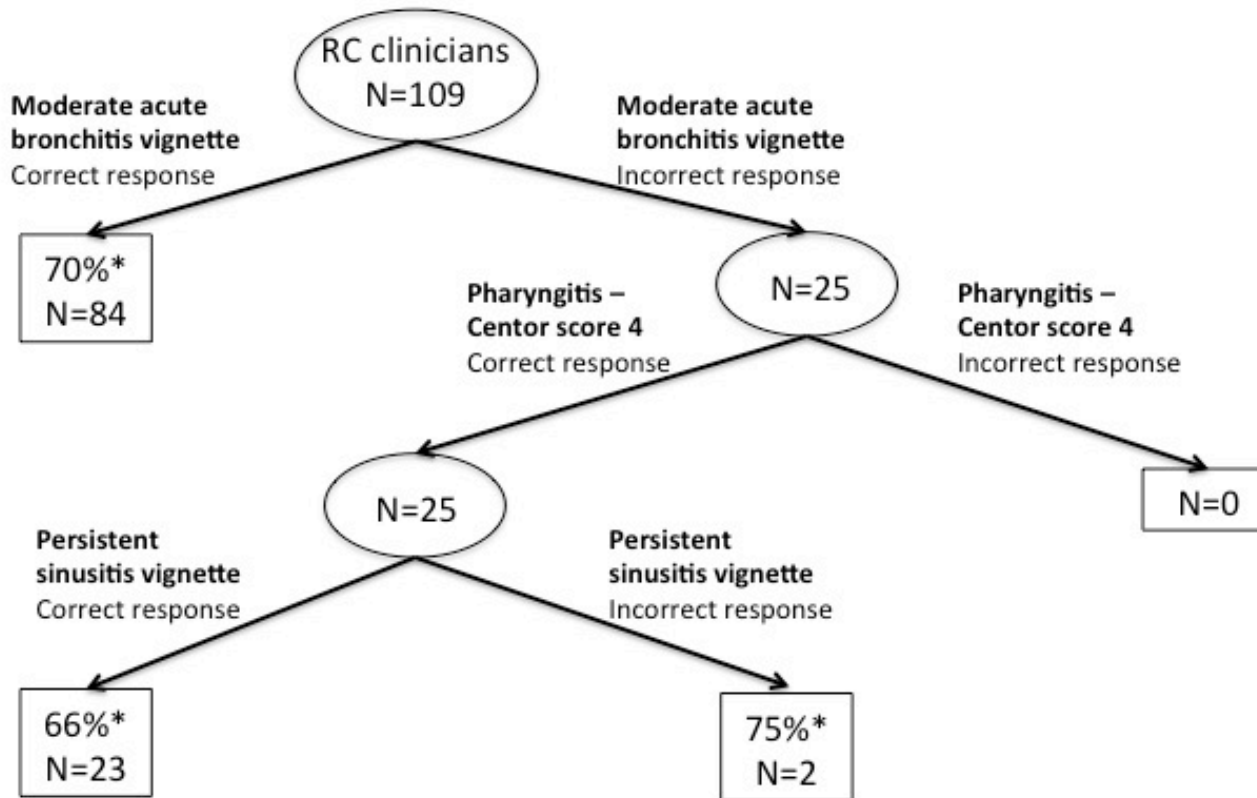
\*Cell is bolded if there was a significant difference ( $p < 0.05$ ) between physicians’ offices and retail clinics.

Supplemental Digital Content Table 3 – EHR-based comprehensive ARI management rate, stratified by performance on the vignettes

<b>Vignette score*</b>	<b>N</b>	<b>EHR-based comprehensive management rate</b>
0-3	6	28%
4-6	53	47%
7-9	124	60%

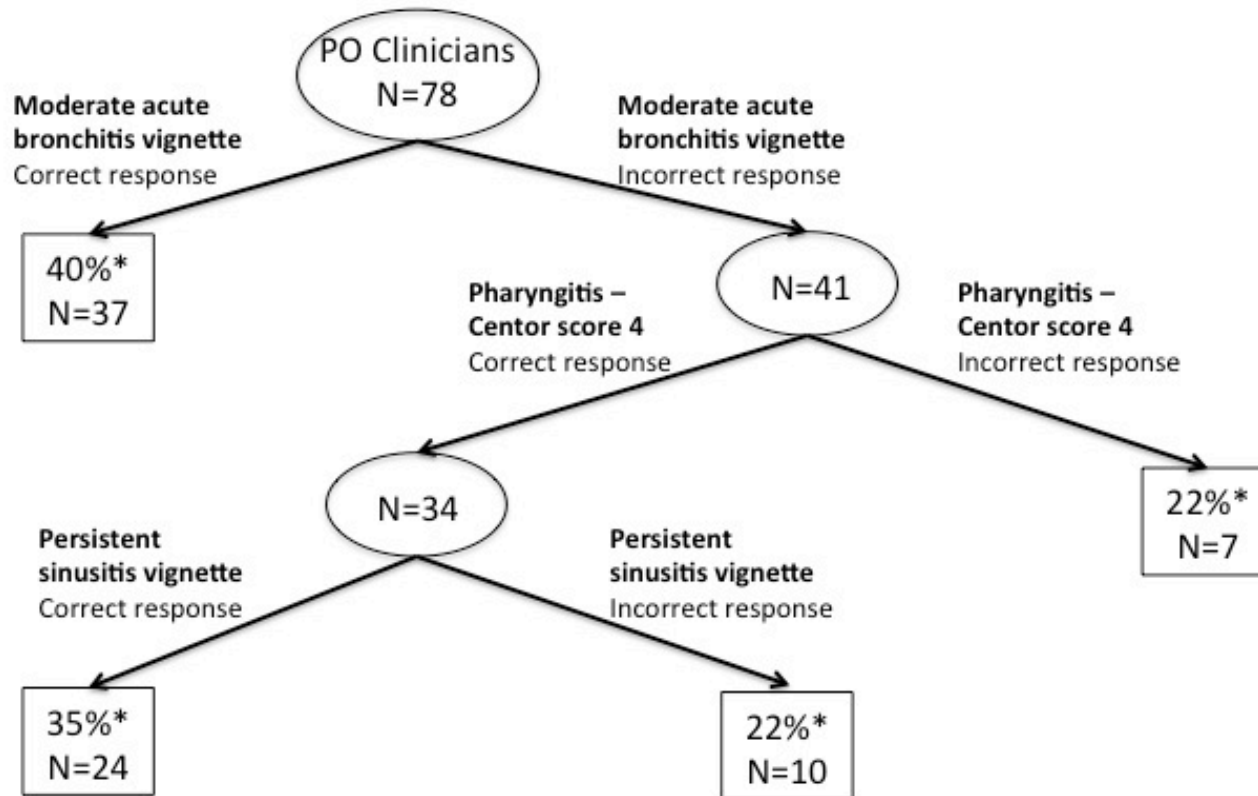
\*Vignette score is a sum of the scores across all vignettes, where is minimum is and the maximum is 9 (where comprehensive management on each vignette is given a score of 1).

Supplemental Digital Content Figure 1a - CART analysis of vignette ARI management to predict comprehensive ARI management rate (retail clinics)



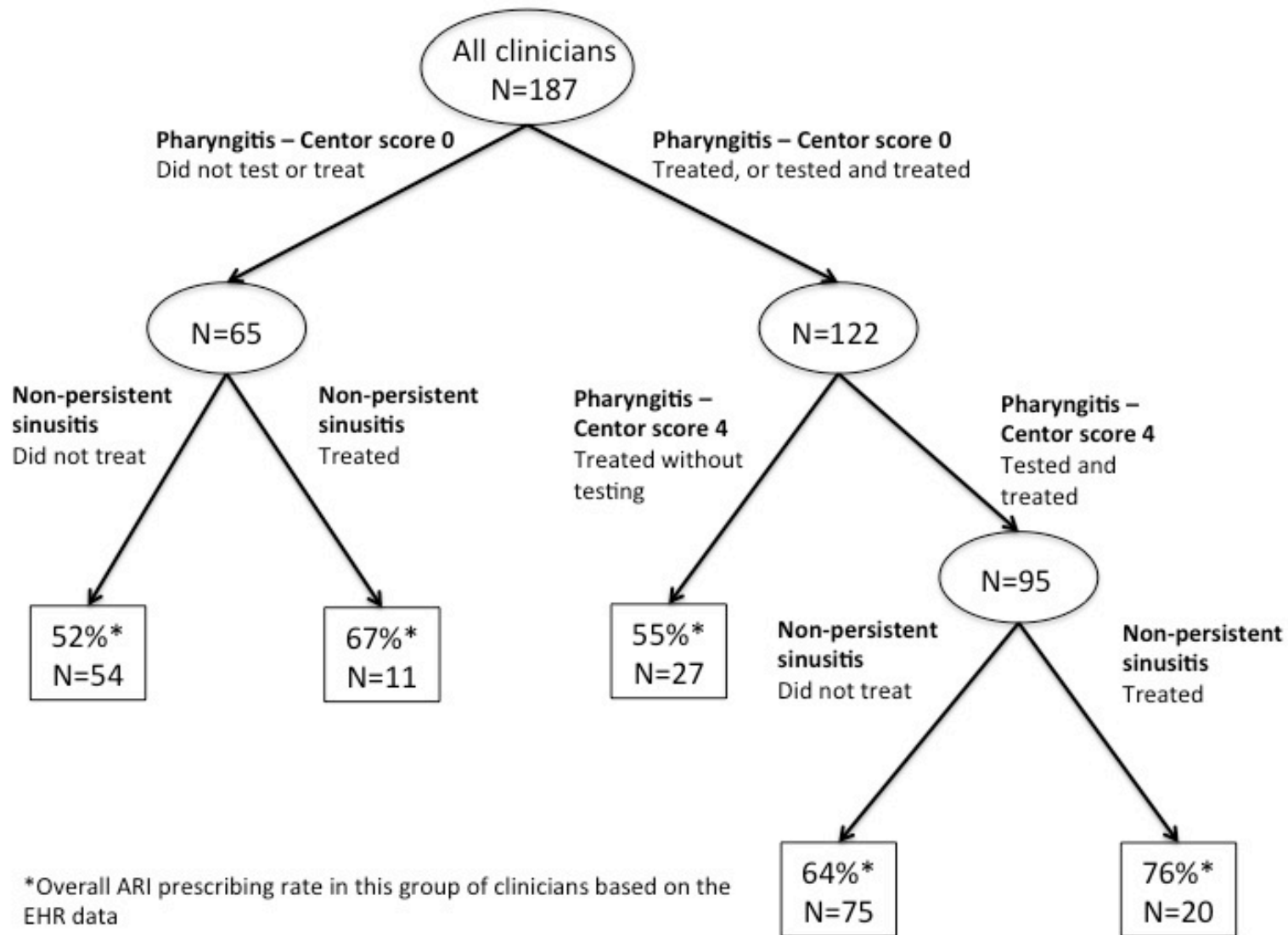
\*Comprehensive ARI management rate in this group of clinicians based on the EHR data

Supplemental Digital Content Figure 1b – CART analysis of vignette ARI management to predict comprehensive ARI management rate (physicians' offices)

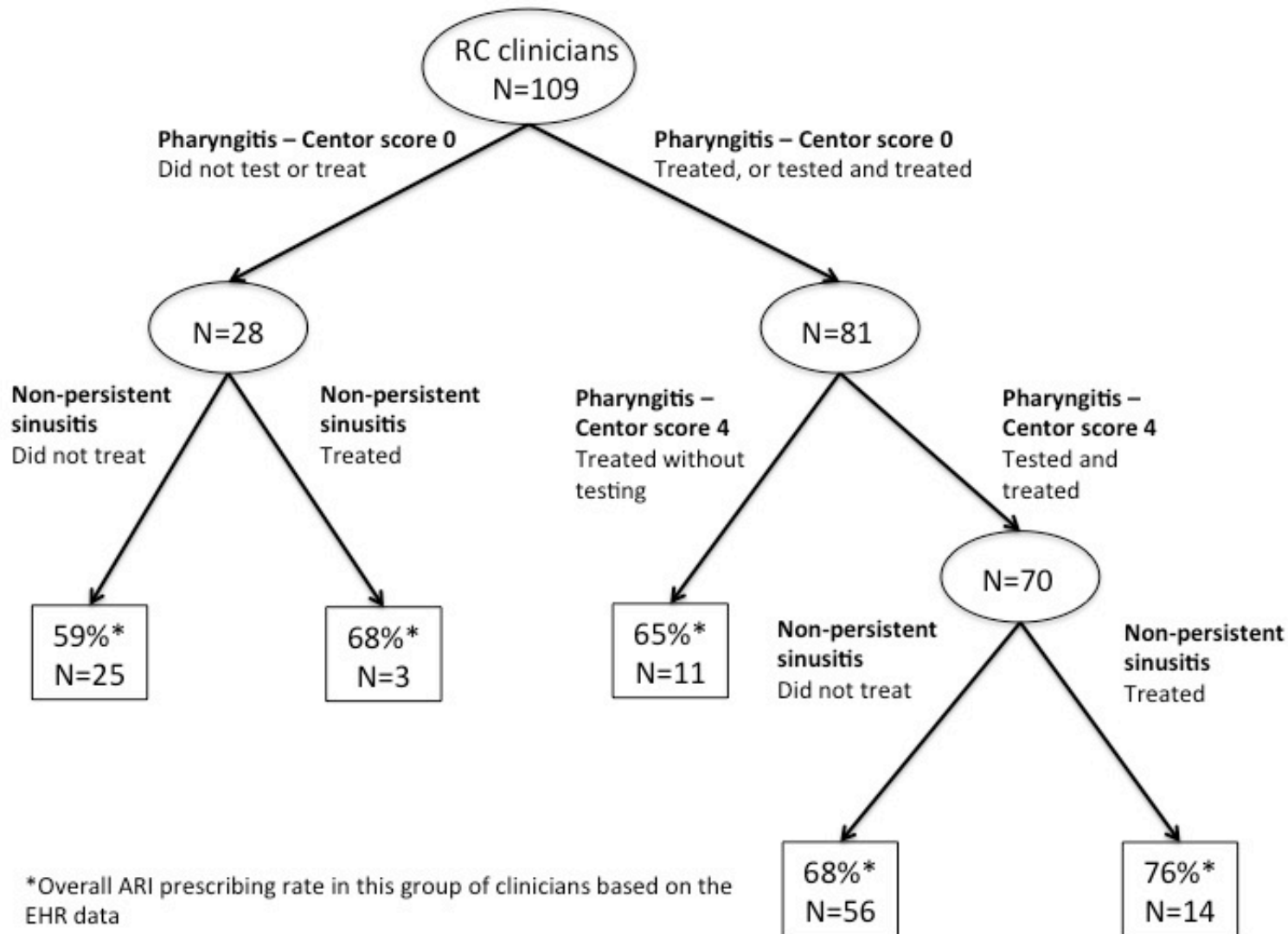


\*Comprehensive ARI management rate in this group of clinicians based on the EHR data

Supplemental Digital Content Figure 2 – CART analysis of vignette-based ARI management to predict EHR-based performance on comprehensive management overall ARI antibiotic prescribing



Supplemental Digital Content Figure 3a – CART analysis of vignette ARI management to predict overall ARI antibiotic prescribing rate (retail clinics)





Supplemental Digital Content Figure 3b – CART analysis of vignette ARI management to predict overall ARI antibiotic prescribing rate (physicians' offices)

