

The Influence of Rapid Influenza Diagnostic Testing on Clinician Decision-Making for Patients With Acute Respiratory Infection in Urgent Care

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Background. The potential benefits of using rapid influenza diagnostic tests (RIDTs) in urgent care facilities for clinical care and prescribing practices are understudied. We compared antiviral and antibiotic prescribing, imaging, and laboratory ordering in clinical encounters with and without RIDT results.

Methods. We compared patients with acute respiratory infection (ARI) symptoms who received an RIDT and patients who did not at 2 urgent care facilities. Primary analysis using 1-to-1 exact matching resulted in 1145 matched pairs to which McNemar 2 × 2 tests were used to assess the association between the likelihood of prescribing, imaging/laboratory ordering, and RIDT use. Secondary analysis compared the same outcomes using logistic regression among the RIDT-tested population between participants who tested negative (RIDT(−)) and positive (RIDT(+)).

Results. Primary analysis revealed that compared to the non-RIDT-tested population, RIDT(+) patients were more likely to be prescribed antivirals (OR, 10.23; 95% CI, 5.78–19.72) and less likely to be prescribed antibiotics (OR, 0.15; 95% CI, .08–.27). Comparing RIDT-tested to non-RIDT-tested participants, RIDT use increased antiviral prescribing odds (OR, 3.07; 95% CI, 2.25–4.26) and reduced antibiotic prescribing odds (OR, 0.52; 95% CI, .43–.63). Secondary analysis identified increased odds of prescribing antivirals (OR, 28.21; 95% CI, 18.15–43.86) and decreased odds of prescribing antibiotics (OR, 0.20; 95% CI, .13–.30) for RIDT(+) participants compared with RIDT(−).

Conclusions. Use of RIDTs in patients presenting with ARI symptoms influences clinician diagnostic and treatment decision-making, which could lead to improved patient outcomes, population-level reductions in influenza burden, and a decreased threat of antibiotic resistance.

Keywords. rapid influenza diagnostic test; antiviral and antibiotic prescribing; acute respiratory infection; influenza; antibiotic resistance.

Influenza infections are acute respiratory infections (ARIs) that infect more than 90 million children aged <5 years worldwide with an estimated mortality of 28 000 to 115 500 deaths in a typical season [1]. Across all ages globally, influenza is estimated to cause severe illness in 3 to 5 million individuals annually, resulting in an estimated 290 000 to 650 000 deaths on average [2]. Accurate and timely diagnosis and treatment of influenza

with antiviral medications can reduce illness severity [3–5], mortality [5–7], and the potential for secondary infections by reducing transmissibility [8]. However, antiviral prescribing rates have historically been low, as treatment of influenza with antivirals requires well-honed clinical judgment, the ability to quickly diagnose, and situational awareness as provided by influenza surveillance systems often in the absence of accurate objective clinical tests [9–11].

Antibiotic-resistant infections cause an estimated 35 000 deaths in the United States annually [12] and are projected to be the source of 10 million annual deaths worldwide by 2050 [13]. The primary driver of antibiotic resistance is the overuse of antibiotics. Therefore, unnecessary antibiotic prescribing contributes to the problem [14]. The Centers for Disease Control and Prevention estimates that, annually, 47 million antibiotic prescriptions are written unnecessarily for infections that cannot be treated with antibiotics, which equates to roughly 30% of all antibiotic prescriptions in the United States [15]. Similarities in symptomatology among viral, bacterial, and

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other ARI causes complicates diagnoses [16] and has led to a wide range of average antibiotic prescribing rates during clinical encounters for ARIs that range from 17% to 70% [16–21].

Point-of-care rapid influenza diagnostic tests (RIDTs) provide a tool for clinicians when diagnosing patients who exhibit ARI symptoms. An accurate point-of-care diagnostic test is especially important in an urgent care setting where clinicians must handle a large patient load quickly and accurately due to the lack of continuity of care. Historically, RIDTs have had low sensitivity, ranging from 50% to 70% [22]. However, newer generations of these tests have shown promising results. Benirschke and colleagues [22] found 17% higher antiviral prescribing for patients with positive testing using a newer generation of RIDTs in comparison with traditional RIDTs at 2 urgent care locations. Another study that compared antiviral prescribing rates in patients with ARI symptoms whose clinicians used RIDTs found a significant increase in antiviral prescribing in the 2015–2016 vs 2009–2010 influenza seasons [23]. However, data from large-scale studies comparing diagnosis and treatment decisions in the presence and absence of newer-generation RIDTs are lacking. Our objective in this study was to gain insight into the differences in clinical decision-making of clinicians when treating a patient who presents with ARI symptoms in an urgent care setting in the presence and absence of an RIDT.

METHODS

Study Design

In this study, we used data collected from another study conducted to evaluate patients' ability to self-collect nasal swab specimens for rapid testing [24]. Patients of all ages who presented with ARI symptoms were recruited while waiting to receive services after registering to be seen by urgent care clinicians. Research staff recruited at varied days and times from 2 university-affiliated urgent care facilities in a metropolitan area during 2 periods of elevated influenza circulation (7 February 2019–13 May 2019, 1 November 2019–4 March 2020) as defined by local influenza surveillance. This population received RIDT testing (RIDT-tested), and results were made available to clinicians at the time of the encounter.

Informed written consent was obtained from patients or parent/guardians prior to specimen collection. Research staff trained in the proper collection of nasal swabs performed collection of specimens from both nostrils of the participant. Specimens were tested using the Sofia Influenza A+B Fluorescent Immunoassay (Quidel Corporation, San Diego, CA), which allows for point-of-care testing for influenza and provides either positive or negative results for active influenza infection in 15 minutes [25]. The test has a reported sensitivity and specificity of 94% and 95%, respectively, for influenza A and 89% and 96%, respectively, for influenza B [26]. The

patient or parent/guardian was asked to complete a questionnaire requesting demographic and historical health data. Patient encounter data, including prescribed medications and orders for imaging and laboratory tests, were collected post-visit through review of the electronic medical record.

De-identified clinical and demographic data were collected for a matched comparison population during contemporaneous urgent care sessions where neither participants nor clinicians had access to RIDTs (non-RIDT-tested). Data collected from the medical records system specific to the 2 urgent care facilities visited by the RIDT-tested population and during the same time periods included patient age and sex, date of encounter, antiviral and antibiotic medication prescribed, laboratory testing ordered, and imaging studies ordered.

The non-RIDT-tested population inclusion criteria were based on a retrospective analysis of *International Classification of Diseases, Tenth Revision, Clinical Modification*, diagnostic codes from chapter 10, "Disease of the Respiratory System (J00-J99)" in the patient's diagnosis as to mimic symptoms presented by participants in the RIDT-tested population [27]. The exclusion criteria for both populations used medical records to identify use of either influenza antivirals or vaccination by means of an influenza nasal spray/mist vaccine within the 7 days prior to the date of service. Consistent with the RIDT-tested population inclusion criteria, only data from the first date of service was captured for individuals with more than 1 qualifying service within the date range. A waiver of informed consent for collecting non-RIDT-tested population data was approved by the University of Wisconsin–Madison Health Sciences Institutional Review Board and the Johns Hopkins Bloomberg School of Public Health Institutional Review Board.

Statistical Analyses

Two sets of analyses were performed in this study. The primary analysis compared the RIDT-tested population to a matched non-RIDT-tested population to determine if differences in clinical decision-making exist when treating a patient who presents with ARI symptoms in the presence and absence of an RIDT. This analysis was split 3 ways to determine if differences exist in patients with positive RIDT results (RIDT(+)), negative RIDT results (RIDT(–)), and the overall RIDT-tested population. The secondary analysis compared participants only in the RIDT-tested population to determine if RIDT(+) patients are treated differently based on the diagnosis of influenza from the RIDT compared with RIDT(–) patients.

In the primary analysis, RIDT-tested and non-RIDT-tested participants were matched at a 1-to-1 ratio using exact matching on patients' 5-year age bin (eg, 20–24, 25–29, etc.), sex (male or female), and week of encounter. Within the RIDT-tested population, 1145 participants matched of the

1166 participants available. The 21 unmatched RIDT-tested participants were due to incomplete data for matching or an error in administering or receiving the result of the RIDT.

The primary outcomes of interest were antibiotic and antiviral prescription behaviors of the clinicians for RIDT-tested vs non-RIDT-tested participants. Secondary outcomes were laboratory/diagnostic orders, which included blood culture, complete blood count (CBC), rapid streptococcal screen, urinalysis, urine culture, influenza A + B/respiratory syncytial virus reverse-transcription polymerase chain reaction (RT-PCR) test, and chest radiograph (CXR). McNemar's 2 × 2 tests were used to assess association between the clinicians' prescription/order likelihood and the availability of an RIDT result at the encounter. The matching and inference processes were done separately for comparing RIDT(+), RIDT(−), and all RIDT-tested participants regardless of the result with their respective matched non-RIDT-tested populations.

Due to the relatively large number of statistical tests performed, multiple comparison correction of the *P* values was also conducted on several clusters of the above tests. Within a correction cluster, the Benjamini–Hochberg procedure was used to control the false discovery rate at 5%. Cluster A includes the primary outcomes (antiviral prescribing and antibiotic prescribing) when matching and analyzing either the RIDT(+) or RIDT(−) populations (4 tests). Cluster B includes all laboratory/diagnostic order outcomes when matching and analyzing all RIDT-tested participants regardless of the result (7 tests). Cluster C includes the laboratory/diagnostic order outcomes when matching and analyzing either the RIDT(+) or RIDT(−) populations (14 tests). No correction was performed on the 2 tests that comprise the primary outcomes when matching and analyzing all RIDT-tested participants regardless of the result.

Comparison of ages between RIDT-tested and non-RIDT-tested participants was conducted using *t* tests; comparisons of sex between RIDT-tested and non-RIDT-tested participants was conducted using χ^2 tests of association. Statistical significance was determined at the 5% level. All analyses were performed in R version 4.1.0 [28] and used the *MatchIt* [29] and *exact2 × 2* [30] packages.

The secondary analysis compared participants only in the RIDT-tested population to determine if differences in

prescribing and laboratory and imaging ordering decisions by clinicians exist for participants with positive (*n* = 294) and negative (*n* = 851) RIDT results. Logistic regressions were used with the main effects of age and gender accounted for along with RIDT result status. Due to the number of statistical tests performed, multiple comparison correction of the *P* values was conducted using the Benjamini–Hochberg procedure to control the false discovery rate at 5%.

RESULTS

Primary Analysis

Demographic information for participants in the primary analysis is shown in Table 1. Given the matching criteria, *t* tests showed no significant differences between RIDT-tested and matched non-RIDT-tested populations.

Table 2 shows the results of the comparison of antibiotic and antiviral prescribing, imaging, and laboratory ordering between RIDT-tested and matched non-RIDT-tested populations. The correction clusters are noted in Table 2 under the Adjustment Group heading.

Compared with the matched non-RIDT-tested population, we identified an 85% reduction in the odds of prescribing an antibiotic in RIDT(+) participants (odds ratio [OR], 0.15; 95% confidence interval [CI], .08–.27; *P* < .0001) and a 30% reduction in the odds of prescribing an antibiotic in the RIDT(−) participants (OR, 0.70; 95% CI, .57–.86; *P* = .001). Individuals within the RIDT-tested population, regardless of RIDT result, had a 48% reduction in the odds of antibiotics prescribed compared with non-RIDT-tested participants (OR, 0.52; 95% CI, .43–.63; *P* < .0001).

A 923% increase in the odds of prescribing antivirals to RIDT(+) participants was identified when compared with the matched non-RIDT-tested population (OR, 10.23; 95% CI, 5.78–19.72; *P* < .0001). There was no significant difference in the odds of prescribing an antiviral to RIDT(−) participants compared with the matched non-RIDT-tested population (OR, 0.79; 95% CI, .46–1.36; *P* = .4426). Individuals within the RIDT-tested population, regardless of RIDT result, had a 207% increase in the odds of antivirals prescribed compared with the non-RIDT-tested population (OR, 3.07; 95% CI, 2.25–4.26; *P* < .0001).

Table 1. Description of Rapid Influenza Diagnostic Test (RIDT)-Tested Participants With Matched Non-RIDT-Tested, Separated by Comparison Groups: Any Conclusive Result, RIDT(+), and RIDT(−)

Demographic	Any Conclusive Result		RIDT(+)		RIDT(−)	
	RIDT-Tested	Non-RIDT-Tested	RIDT-Tested	Non-RIDT-Tested	RIDT-Tested	Non-RIDT-Tested
<i>n</i>	1145	1145	294	294	851	851
Female, <i>n</i> (%)	638 (55.7)	638 (55.7)	159 (54.1)	159 (54.1)	479 (56.3)	479 (56.3)
Age, mean (standard deviation), <i>y</i>	31.00 (17.32)	31.07 (17.45)	27.99 (17.49)	28.15 (17.59)	32.03 (17.15)	32.05 (17.28)

Abbreviation: RIDT, rapid influenza diagnostic test.

Table 2. Comparison of Antibiotic and Antiviral Prescribing, Imaging, and Laboratory Ordering (7 February 2019–13 May 2019; 1 November 2019–4 March 2020)

Characteristic	Unadjusted		Benjamini–Hochberg Adjusted	
	Unadjusted Odds Ratio (95% Confidence Interval)	P Value	Adjustment Group	Adjusted P Value
Antibiotic prescribing				
RIDT result				
RIDT(+)	.15 (.08–.27)	<.0001	A	<.0001
RIDT(–)	.70 (.57–.86)	<.001	A	.0010
Any conclusive result	.52 (.43–.63)	<.0001	None	...
Antiviral prescribing				
RIDT result				
RIDT(+)	10.23 (5.78–19.72)	<.0001	A	<.0001
RIDT(–)	.79 (.46–1.36)	.4426	A	.4426
Any conclusive result	3.07 (2.25–4.26)	<.0001	None	...
Imaging ordering				
RIDT result				
RIDT(+)	1.52 (.91–2.57)	.1143	C	.2285
RIDT(–)	1.70 (1.3–2.24)	<.001	C	<.001
Any conclusive result	1.59 (1.25–2.02)	<.001	B	<.001
Laboratory ordering				
RIDT(+)				
Blood culture	∞ (.03–∞)	1.0000	C	1.0000
CBC	1.00 (.47–2.14)	1.0000	C	1.0000
Urinalysis	1.00 (.27–3.74)	1.0000	C	1.0000
Urine culture	0.33 (.01–4.15)	.6250	C	1.0000
Rapid streptococcal screening	.45 (.30–.67)	<.0001	C	.0001
Influenza A/B/RSV	.04 (0–.23)	<.0001	C	<.0001
RIDT(–)				
Blood culture	∞ (.41–∞)	.2500	C	.4375
CBC	2.48 (1.62–3.9)	<.0001	C	<.0001
Urinalysis	.76 (.37–1.53)	.5114	C	.5966
Urine culture	.55 (.17–1.61)	.3323	C	.4652
Rapid streptococcal screening	.98 (.80–1.21)	.9180	C	.9180
Influenza A/B/RSV	.15 (.06–.33)	<.0001	C	<.001
Any conclusive result				
Blood culture	∞ (.66–∞)	.1250	B	.1458
CBC	2.04 (1.45–2.91)	<.0001	B	<.001
Urinalysis	2.88 (1.24–7.43)	.0107	B	.0187
Urine culture	1.60 (.46–6.22)	.5811	B	.5811
Rapid streptococcal screening	.80 (.67–.96)	.0136	B	.0191
Influenza A/B/RSV	.09 (.04–.20)	<.0001	B	<.0001

Abbreviations: Influenza A/B/RSV, Influenza A, Influenza B, Respiratory Syncytial Virus; CBC, complete blood count; RIDT, rapid influenza diagnostic tests.

No significant associations were identified in the odds of CXR ordering for RIDT(+) participants when compared with the matched non-RIDT-tested population (OR, 1.52; 95% CI, .91–2.57; $P = .2285$). There was a 70% increase in the odds of having a CXR ordered for RIDT(–) participants when compared with the matched non-RIDT-tested population (OR, 1.70; 95% CI, 1.30–2.24; $P < .001$). Individuals within the RIDT-tested population, regardless of the RIDT result, had a 59% increase in the odds of a CXR being ordered compared with the non-RIDT-tested population (OR, 1.59; 95% CI, 1.25–2.02; $P < .001$).

A decreased odds of ordering rapid streptococcal screening (OR, 0.45; 95% CI, .30–.67; $P = .0001$) and RT-PCR (OR,

0.04; 95% CI, 0–.23; $P < .0001$) laboratory tests for the RIDT(+) population was identified when compared with the matched non-RIDT-tested population. An increased odds of ordering a CBC (OR, 2.48; 95% CI, 1.62–3.90; $P < .0001$) and decreased odds of RT-PCR testing (OR, 0.15; 95% CI, .06–.33; $P < .001$) for RIDT(–) participants was identified compared with the matched non-RIDT-tested population. Individuals in the RIDT-tested population, regardless of the RIDT result, had increased odds of having CBC (OR, 2.04; 95% CI, 1.45–2.91; $P < .001$) and urinalysis tests (OR, 2.88; 95% CI, 1.24–7.43; $P = .0187$) ordered and reduced odds of having a rapid streptococcal screening (OR, 0.80; 95% CI, .67–.96; $P = .0191$) and influenza A/B/RSV test (OR, 0.09; 95% CI,

.04–.20; $P < .0001$) ordered compared with patients in the non-RIDT-tested population.

Secondary Analysis

Demographic information for all participants in the secondary analysis is shown in Table 3. The t tests showed a significant difference between RIDT(+) and RIDT(–) participants' age but not sex. Table 4 shows the results of the comparison of antibiotic and antiviral prescribing, imaging, and laboratory ordering between RIDT(–); reference group) and RIDT(+) participants.

A decreased odds of prescribing antibiotics (OR, 0.20; 95% CI, .13–.30; $P < .0001$) and ordering rapid streptococcal screening (OR, 0.44; 95% CI, .32–.59; $P = < .0001$) for RIDT(+) participants was identified when compared with RIDT(–) participants. An increased odds of prescribing antivirals to RIDT(+) participants was identified when compared with RIDT(–) participants (OR, 28.21; 95% CI, 18.15–43.86; $P < .0001$).

DISCUSSION

The results of this study showed significant differences in clinician decision-making when RIDTs were used during clinical encounters with patients who presented with ARI symptoms in an urgent care setting compared with when RIDTs were not available.

The increase in antiviral prescribing for RIDT-tested patients identified in this study provides strong evidence for the use of rapid diagnostic testing in urgent care centers and echoes previous studies that used RIDTs. In a similar study, Fowlkes and colleagues [23] showed that antiviral prescribing was strongly associated (OR, 12) with positive RIDT results. This large-scale study also included patients in a similar age range who presented to emergency rooms, urgent care centers, and primarily primary care practices. Benirschke and colleagues [22] compared a newer-generation RIDT to traditional RIDTs in an urgent care setting and identified higher antiviral prescribing among clinicians who used the newer-generation RIDT when a RIDT was positive.

Table 3. Description of Rapid Influenza Diagnostic Test-Tested Participants Separated by Test Result

Demographic	RIDT(–)	RIDT(+)	P Value
n	851	294	
Gender, female (%)	479 (56.3)	159 (54.1)	.556
Age, mean (standard deviation)	32.03 (17.15)	27.99 (17.49)	.001
Age group, n (%), y			
<18	140 (16.5)	87 (29.6)	...
18–49	572 (67.2)	169 (57.5)	...
50–65	98 (11.5)	27 (9.2)	...
>65	41 (4.8)	11 (3.7)	...

Abbreviation: RIDT, rapid influenza diagnostic tests.

Table 4. Logistic Regression Comparison of Antibiotic and Antiviral Prescribing, Imaging, and Laboratory Ordering in Rapid Influenza Diagnostic Test-Tested Participants With Negative Results With Participants With Positive Results

Outcome	Unadjusted Odds Ratio (95% Confidence Interval)	P Value	Benjamini– Hochberg Adjusted P Value
Antibiotic prescribing	.20 (.13–.30)	<.0001	None
Antiviral prescribing	28.21 (18.15–43.86)	<.0001	None
Imaging ordering	1.03 (.73–1.46)	.8558	.9776
Blood culture	1.03 (.11–10.12)	.9776	.9776
Complete blood count	.59 (.35–.99)	.0474	.1662
Urinalysis	1.12 (.43–2.89)	.8155	.9776
Urine culture	.45 (.05–3.68)	.4530	.7928
Rapid streptococcal screening	.44 (.32–.59)	<.0001	<.0001
Influenza A/B/ RSV	.37 (.05–3.01)	.3522	.7928

Abbreviations: Influenza A/B/RSV, Influenza A, Influenza B, Respiratory Syncytial Virus; RIDT, rapid influenza diagnostic tests.

If an accurate diagnosis of influenza through RIDT use is achieved and antivirals are subsequently prescribed, patients are more likely to have reduced severity and duration of illness [13–17], which could decrease the spread of influenza at a population level [18]. The practice of performing rapid testing for suspected viral illnesses is becoming an accepted norm for patients and clinicians alike as a result of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pandemic [31]. This provides evidence that patients who present with ARI symptoms may be accepting of not only SARS-CoV-2 rapid tests but also RIDTs.

The reduction in antibiotic prescribing for RIDT(+) patients identified in this study supports and expands the findings of previous research that knowledge of rapid testing results can influence clinicians' treatment decisions. Bonner and colleagues [32] and Sharma and colleagues [33] found a reduction in antibiotic prescribing for pediatric and adult patients with ARI symptoms who tested positive for influenza using RIDTs. Key differences between these studies and ours include the larger sample size, broader age range, and newer-generation RIDT with a higher sensitivity. Additionally, RIDTs may be used to ameliorate pressure placed on clinicians by patients to unnecessarily prescribe antibiotics. In a 2014 study of more than 1000 general practitioners in Great Britain, 55% reported feeling pressure from patients to prescribe antibiotics even when they were not necessary [34]. When prescriptions were written unnecessarily, clinicians' reasoning was that they did not know whether the infection was viral or bacterial (70% of responses) or they lacked an easy-to-use diagnostic tool (24% of responses) [34]. We believe the results of this study,

and others like it, will help clinicians adopt RIDTs as a standard of care when treating patients with ARI symptoms to assist in accurate diagnosis and treatment, while also reducing the impact of patient pressure.

The results of our primary analysis identified differences in clinical decision-making regardless of the RIDT result, suggesting the mere presence of the RIDT may have altered diagnostic and treatment behavior by putting the clinician in the frame of mind that the patient's symptoms could be caused by a viral pathogen rather than a bacterial infection, especially considering the RIDT was deployed during the influenza season. Additional research is needed to explore the underlying cause driving these results.

Consistent with previous research, we found a decrease in laboratory testing ordered for RIDT(+) patients, but to a different extent. Previous studies found reductions in CBC panels, blood cultures, urinalyses, and urine cultures ordered for patients with ARI symptoms in the presence of positive RIDT results [32, 33]. Our study identified reductions in rapid streptococcal screening and RT-PCR. However, no significant reduction was identified for already very low rates of RT-PCR in the secondary analysis. The difference in results may be driven by the clinical setting, age of participants, or changes in clinical practices in the 15 years between studies. A reduction of diagnostic testing due to RIDT use would likely lead to a lower cost of care and shorter treatment duration as identified in previous studies [32, 35].

Our study had several limitations. First, the range of diagnostic codes used for inclusion in the non-RIDT-tested population may not have perfectly matched symptoms experienced by the RIDT-tested population. Therefore, the 2 populations may not have been a perfect match, which could potentially influence our study outcomes. Second, while this was a large-scale study, participants came from only 2 urgent care clinics in the same mid-sized midwestern city. Prescribing and diagnostic test ordering patterns are known to differ regionally. Future research should replicate this study design in different or more widespread areas. Third, baseline clinical characteristics related to underlying comorbid conditions were not collected as part of this study and could have affected the diagnostic and prescribing behaviors observed by clinicians. This limitation was consistent across both RIDT-tested and non-RIDT-tested populations. Fourth, clinicians were acutely aware of the presence of the RIDT results in the RIDT-tested population that, as identified, resulted in differences in prescribing behaviors. This is both a finding and a source of bias (Hawthorne effect); however, clinicians were unaware of the future comparison to non-RIDT-tested individuals. Lastly, while our study mimics a randomized trial setup with the 1-to-1 matching, it was not truly a randomized trial, thus, results are not necessarily causal.

CONCLUSIONS

The results of this study support the importance of using RIDTs in an urgent care setting as an aid to ensure proper

diagnosis and treatment for patients who present with ARI symptoms. Clinicians are compelled to quickly sift through clues in the form of symptoms that overlap across a range of potential causes, often under the pressure of a patient's expectations. Access to a point-of-care diagnostic tool can facilitate appropriate diagnosis and treatment while satisfying patient expectations. While still underused, the culture for acceptance of RIDTs as a mainstream practice has been reshaped by the widespread adoption of rapid diagnostic testing for SARS-CoV-2 and has the potential for becoming a standard diagnostic practice for ARIs during the influenza season. However, this culture change needs to be nurtured through additional research. This research suggests that implementation of RIDTs could provide clinicians with information to improve their diagnostic and prescribing practice, benefit patients by reducing the burden of unnecessary testing, increase efficiency and reduce costs for urgent care centers, assist in mitigating the burden of influenza at the population level, and help confront the spread of antibiotic resistance.

Notes

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