Supplementary Online Content

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This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Survey Design

Vignette		Response Author		Disclosure	
Topic	Seriousness	Patient Question	Human Response	Al Response	Options
A	Least	My pharmacy said they never received the prescription for my metformin. Could you send it again?	Sure, will send it over now. Sincerely, Dr. T	Of course, I apologize for any inconvenience you've experienced. I'll resend your prescription for metformin to your pharmacy right away. Please double-check with your pharmacy to ensure they receive it this time. If you encounter any further issues or have additional questions, feel free to reach out, and we'll do our best to assist you. Your health and well-being are important to us, and we appreciate your diligence in managing your medication. Sincerely, Dr. T	Human: "This message was created entirely by Dr. T without the use of text generation software." or Al: "This message was created with the help of text generation software and checked for accuracy by Dr. T before being sent."
В	Moderate	I've been using the new antibiotic for my bronchitis for a few days and I'm having a lot of nausea. I'm not sure if that is normal or not. Any advice would be	Hi. I'm sorry you are feeling nauseous. Have you had side effects from antibiotics before? If so, which ones? Are you taking them on an empty stomach? If so, taking them with food can help. Try that and see if it helps. Let me	Hello, I'm sorry to hear that you're experiencing nausea while taking the new antibiotic for your bronchitis. Nausea can be a potential side effect of antibiotics, and it's essential to address it. Have you had any previous experiences with antibiotic	

		greatly appreciated.	know if that doesn't help. Sincerely, Dr. T	side effects? Knowing which antibiotics may have caused issues in the past can be helpful. Regarding your current antibiotic, if you've been taking it on an empty stomach, this might be contributing to the nausea. I recommend trying to take the antibiotic with a meal or a light snack. Often, this simple change can alleviate the discomfort. Please give the food-based approach a try and monitor if it helps with the nausea. If the symptoms persist or worsen despite this adjustment, or if you have any other concerns, please don't hesitate to contact us. Your well-being is our priority, and we're here to provide support and guidance during your bronchitis treatment.	
				bronchitis treatment. Sincerely,	
С	Most	I saw the results	Hello. Pulmonary	Dr. T Hello,	
		from my lung	hamartomas are most	I understand your concern	
		scan. It said that a	commonly benign. In	after reading the results of	
		2.3 x 1.8 cm mass	order to best address	your lung scan. A	
		was found and	these questions and	pulmonary hamartoma is	

that the "features	plan moving forward, I	typically a non-cancerous	
are highly	would recommend we	growth in the lung. It's	
suggestive of a	schedule a telehealth or	important to note that these	
pulmonary	in person visit. I will	growths are most	
hamartoma". What		commonly benign, which	
does this mean?	0		
	our schedulers to get a	means they are usually not	
Should I be	time set up with you.	a cause for immediate	
worried?	Sincerely,	worry. However, to provide	
	Dr. T	you with a more accurate	
		understanding of your	
		specific situation and	
		address any concerns you	
		may have, I recommend	
		that we schedule either a	
		telehealth or in-person visit.	
		I will forward your message	
		to our scheduling team,	
		and they will reach out to	
		you soon to arrange a	
		convenient time for your	
		appointment. During our	
		discussion, we can	
		thoroughly review your	
		scan, discuss your medical	
		history, and develop an	
		appropriate plan for your	
		peace of mind and well-	
		being. Please don't	
		hesitate to reach out if you	
		have any immediate	
		questions or concerns.	
		Sincerely,	
		Dr. T	

eTable 2. Mean Change in Preference Scores Based Upon Variables

	Mean score change (95% CI)				
Contrast	Satisfied	Useful	Cared		
Response from Human vs	-0.299 (-0.368,	-0.281 (-0.341,	-0.434 (-0.503,		
Al	230) ***	-0.220) ***	-0.365) ***		
Disclosure to participants:	-0.091 (-0.174,	-0.082 (-0.155,	-0.157 (-0.239,		
From AI vs. No Disclosure	-0.008) *	-0.009) *	-0.074) ***		
Disclosure to participants:	0.041 (-0.042,	0.057 (-0.016,	0.035 (-0.047,		
From human vs. No Disclosure	0.124)	0.130)	0.117)		
Disclosure to participants:	0.132 (0.049,	0.139 (0.066,	0.192 (0.109,		
From human vs. From Al	0.216)**	0.213)***	0.274) ***		

^{*} p<0.05, **p<0.01, ***<0.001

eTable 3. Pairwise Effect of Scenario Seriousness

A: Least Serious, B: Moderate, C: Most Serious

Mean score change (95% CI)				
Contrast	Satisfied	Useful	Cared	
Scenario B vs Scenario A	0.100 (0.017, 0.183) *	0.008 (-0.065, 0.081)	0.009 (-0.073, 0.091)	
Scenario C vs Scenario A	-0.044 (-0.127, 0.039)	-0.006 (-0.079, 0.067)	-0.107 (-0.190, -0.025) *	
Scenario C vs Scenario B **	-0.144 (-0.228, -0.061)***	-0.014 (-0.087, 0.060)	-0.116 (-0.199, -0.034)	

^{*} p<0.05, **p<0.01, ***<0.001

eTable 4. Interaction Between Demographics and Domains

P-values are adjusted using Benjamini and Hochberg correction for multiple testing.

[&]quot;I am satisfied with this interaction."

	Domain	p-value for main effect for demographics	p-value for main effect: domain	Interaction: Multiple testing Adjusted p- value
Age	Scenario	0.751	0.002	0.330
	Response		< 0.001	0.833
	Disclosure		0.006	0.903
Gender	Scenario	0.544	0.002	0.727
	Response		< 0.001	0.727
	Disclosure		0.006	0.727
Highest level of	Scenario	0.560	0.001	0.727
education	Response		< 0.001	0.727
	Disclosure		0.052	0.918
Employment	Scenario	0.287	0.002	0.833
Status	Response		< 0.001	0.833
	Disclosure		0.007	0.903
Race/Ethnicity	Scenario	0.166	0.003	0.903
	Response	7	< 0.001	0.833
	Disclosure		0.006	0.833

[&]quot;The information is useful."

	Domain	p-value for main effect for demographics	p-value for main effect: domain	Interaction: Multiple testing Adjusted p- value
Age	Scenario	0.318	0.936	0.300
	Response		< 0.001	0.925
	Disclosure		0.001	0.400
Gender	Scenario	0.612	0.935	0.525
	Response		< 0.001	0.400
	Disclosure		0.001	0.611
Highest level of	Scenario	0.986	0.912	0.925
education	Response		< 0.001	0.925
	Disclosure		0.007	0.742
Employment	Scenario	0.089	0.918	0.776
Status	Response		< 0.001	0.610

	Disclosure		0.001	0.570
Race/Ethnicity	Scenario	0.284	0.928	0.925
	Response		< 0.001	0.611
	Disclosure		0.001	0.925

[&]quot;I feel cared for during this interaction."

	Domain	p-value for main effect for demographics	p-value for main effect: domain	Interaction: Multiple testing Adjusted p- value
Age	Scenario	0.430	0.009	0.045
	Response		< 0.001	0.620
	Disclosure		< 0.001	0.458
Gender	Scenario	0.141	0.009	0.250
	Response		< 0.001	0.250
	Disclosure		< 0.001	0.458
Highest level of	Scenario	0.758	0.019	0.458
education	Response		< 0.001	0.854
	Disclosure		0.001	0.854
Employment	Scenario	0.017	0.008	0.458
Status	Response		< 0.001	0.397
	Disclosure		< 0.001	0.805
Race/Ethnicity	Scenario	0.270	0.010	0.642
	Response		< 0.001	0.854
	Disclosure		< 0.001	0.850

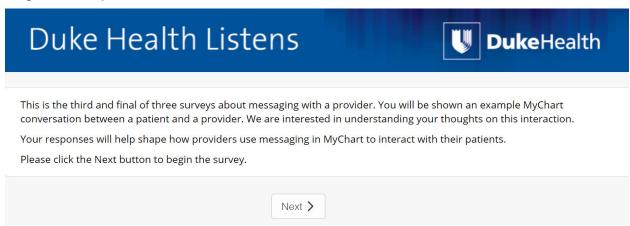
eTable 5. Outcome Measures on Survey

Prompt	Please indicate your level of agreement with the following questions, using the scale below.					
Questions	I am satisfied with this interaction.					
	2. The inf	formation is us	eful.			
	3. I feel c	ared for during	this interaction	٦.		
Response 1 2 3 4					5	
Options	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	

eFigure 1. Survey Design Example

Images below show how the surveys appeared to participants. This example is from the third of three surveys with this participant receiving the moderate seriousness topic with the human response and the artificial intelligence disclosure. Example showcases a discordant example scenario in which the actual author did not match the disclosure.

Page 1 Example



Duke Health Listens



You send the following message to your physician, Dr. T:

"I've been using the new antibiotic for my bronchitis for a few days and I'm having a lot of nausea. I'm not sure if that is normal or not. Any advice would be greatly appreciated."

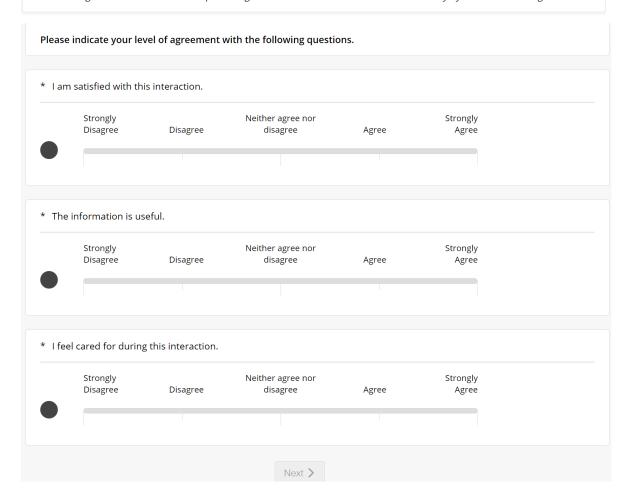
You receive the following reply:

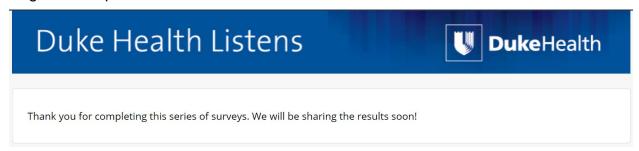
"Hi, I'm sorry you are feeling nauseous. Have you had side effects from antibiotics before? If so, which ones? Are you taking them on an empty stomach? If so, taking them with food can help. Try that and see if it helps. Let me know if that doesn't help."

Sincerely,

Dr. T"

This message was created with the help of text generation software and checked for accuracy by Dr. T before being sent.





eFigure 2. Al Disclosure Language Preferences

In a follow-up survey, participants were asked, "For the following disclosures, please rank which of the explanations you prefer most (#1) to least (#5) in terms of how comfortable you feel with Dr. T's use of automated tools." Figure shows ranked preferences from 893 respondents.

This message was written by Dr. T. with the support of automated tools.

This message was created with the help of text generation software and checked for accuracy by Dr. T before being sent.

This message was reviewed and edited by Dr. T. using automated tools to improve your care experience.

Dr. T has reviewed and edited this message, which was drafted with the assistance of automated tools.

This message was reviewed and edited by Dr.

T. using artificial intelligence to help care for
you more effectively.

