# intelehealth

### Clinical Background & Need

#### Healthcare at the Last Mile

#### RURAL CLINICAL IMPACT

1:1500Ratio of doctors to patients in India **1:4** rural to urban doctors





## Intelehealth bridges the healthcare access gap and bring quality care to patients at the last mile

## Prompt Engineering & Refining Outputs





**Case Studies** tested with ChatGPT

Prompt: You are a doctor with the following patient rural India. Here is their case: What would be the **top 3 differential diagnosis** for this patient?

Please rank the differential diagnoses based on the likelihood and provide an explanation for each one.

The diagnostic tests that can be run at this clinic include the following: ....

If additional diagnostic testing is needed beyond the diagnostic tests that can be run at this clinic, **please** advise the patient to be referred to the next highest clinical center



\*\*Ludwig's Angina\*\*: (additional information) 2. \*\*Deep Neck Infection\*\*: (additional information) 8. \*\*Necrotizing Fasciitis of the Neck\*\*: (additional nformation)

\*Diagnostic Tests\*\*:

1. \*\*Complete Blood Count (CBC)\*\* 2. \*\*Blood Cultures\*\*

3. \*\*Imaging\*\*

- 4. \*\*Urea, Creatinine, Electrolytes\*\*
- 5. \*\*C-Reactive Protein (CRP) or Erythrocyte edimentation Rate (ESR)\*\*

\*\*Management and Referral\*\*: - Immediate empirical antibiotic therapy is warranted, combination such as ampicillin-sulbactam or clindamycin plus a third-generation cephalosporin

- Secure the airway. Given the difficulty with breathing and potential for airway compromise, preparation for emergency airway management is critical.

- Urgent referral to a higher-level center is necessary for imaging, potential surgical intervention

Prompt recognition of these conditions and immediate initiation of treatment, along with urgent referral to a specialized center, are crucial steps in managing this patient's condition to prevent potentially lifethreatening complications.

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## **Generative AI Clinical Decision Support Tool for Telemedicine in LMICs**

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Design Day 2024

## Innovation Opportunity

Shortcomings of Current System



Even with a robust telemedicine system, the system remains overburdened. This leads to issues with lack of time and quality when it comes to patient care.

Community Health

Worker

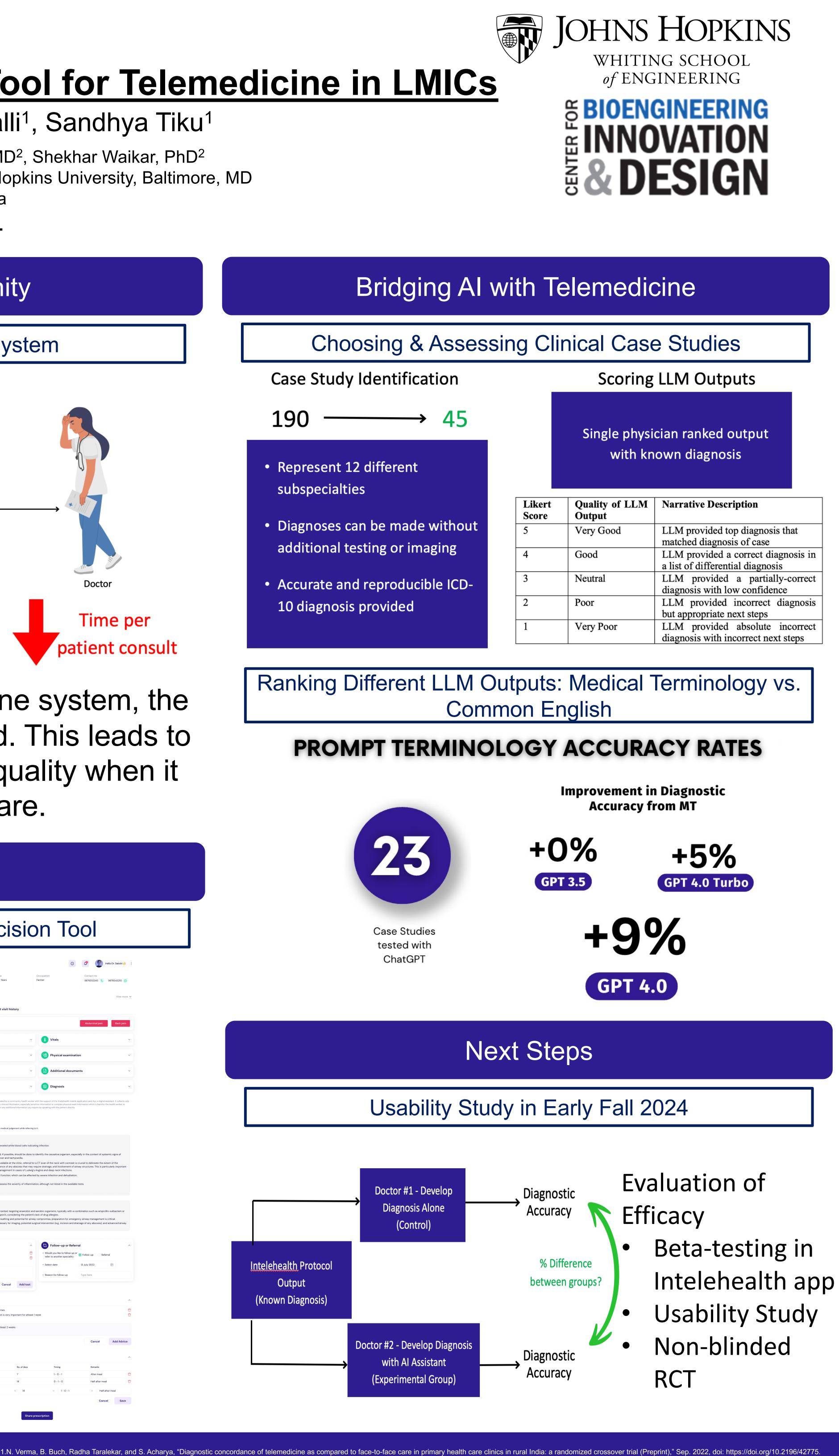
Patient

Volume

## Early Prototypes

Dashboard > Visit summary > Visit Not	te		(i) 🧳 🙀 Hello Dr.	Sakshi 🎉	Dashboa	ard > Visit summary > Visit	Note
Muskan Kala(F)	Age 32 Years	Occupation Farmer	Contact no: 9876012345 🔇 9876	543210 🕓	6	Muskan Kala(F) INT-1234	
Consultation Details					Q	Consultation Details	
				View more 🗸	C □ □	urrent visit summary	
Current visit summary	Past visit history				Chie 0	ef complaint	
Chief complaint				Diarrhea		History of Presenting I	Illne
History of Presenting Illn	ess ^	Vitals		^		Medical history	
Diarrhea	(D) Dight Lhunghondrium	<ul><li>Height(cm)</li><li>Weight(kg)</li></ul>	168 72			Allergies	
Pain radiates to     Upper	(R) - Right Hypohondrium (C) - Epigastric	• BMI • BP	25.51 90/50		<u>ل</u>		
Timing Mornin	•	Pulse	90/50 110 99			Patient interaction	
Exacerbating factors     Food n	ate, 4-6 novement	<ul> <li>Temperature(F)</li> <li>SpO<sub>2</sub> (%)</li> </ul>	No information				
	g forward ruating - 14,20 April 2022.	Respiratory rate	No information		prelim	This history note and physical exam ninary findings and may not gather a ct. Please verify crucial clinical inform	all o
Prior treatment sought None     Additional Information Passing	g 12–15 large-volume stools resembling	🕅 Physical exam	nination	^			
diluted	d milk or rice water with white flakes in st day, Patient became unresponsive	-				LM Generated Treatme	
Associated symptoms		General exams     Temperature	Afebrile		Note:	This information is Al generated. Ple	2854
<ul> <li>Patient reports:</li> <li>Nausea, Anorexia, Constipation, Abdomin</li> </ul>		• Eyes • Eyes	Sunken and dry eyes Pallor - Normal pallor			agnostic Tests	
Restlessness, Injury, Breathlessness, Whe Tightness of chest, Hemoptysis, Hoarser	-	• Arm	Pinch skin* - appeared slow on p	binch test		(CBC)	То
Runny nose, Recurrent Diarrhea. <ul> <li>Patient denies:</li> </ul>		<ul><li>Mouth</li><li>Nail anemia</li></ul>	Dry mouth Nails are normal			i	Wh
Pain, Fever		Ankle     Eye images	Pedal oedema in left foot			i	Alt inf for
		Abdomen					То
Medical history	^	Scaphoid Abdomen				C-Reactive Protein (CRP) or Erythrocyte Sedimentation	lf e
Patient history     Pregnancy status     Not pre-	egnant					Rate (ESR)	
Medical history     Diabet	ies - 20 May 2021   Current medication - king any   Last measured blood sugar	Additional doo	cuments	^	Ма	anagement and Referral	
and Hb	oAIC - Not known ent medication	And the second s				Immediate empirical antibiotic clindamycin plus a third-gener	
Chewing tobacco status     Do not	chew/Denied answer		Blood test			Secure the airway. Given the d Urgent referral to a higher-leve	diff
Smoking history Patient     Alcohol use No/De	t denied/Has no h/o smoking nied	Reddin Children	report.pdf			management capabilities.	
Family history							
Heart disease Father		🕲 Diagnosis		^		Test and Imaging	
Allergies	~	Provisional Diagnosis*	dgment while entering the diagnosis or select	ing from the Al-		ood test ool test	
	own allergies	Assistant Sanjaya's list of diffe		•	Test		
		Asthma			Bloc	od pressure test	
<b>e</b> Patient interaction	^	Diagnosis suggestions Listed according to their likelih	from Al-Assistant Sanjaya nood from highest to lowest.				
Connect with patient	S Click to connect with the patient	Diagnosis 1. Cholera ①				Advice	
Have you spoken with the patient directly?*	s 🚫 No	1. Cholera 🕕 2. Acute Viral Gastroenter	ritis 🕕	•		Advice	
Notes*		3. E.coli enteritis 🛈		0		ase make sure the patient take ase let the patient know that ta	
Please write detailed notes from your conversa Sanjaya.	auon with the patient for your Al-Assistant	Secondary Diagnosis*	<ul> <li>Ye</li> </ul>	es No	Advice		
Notes about chief complaint		Enter secondary diagnos	sis		Let	the patient know that they can	not
Enter notes about chief complaint							
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Secondary Diagnosis Notes					Ø	Medication	
Enter secondary diagnosis notes					Drug na	ame Stre	ng
						cosprin AV 75 M	
	te was generated by a community health work		mobile application and Ayu, a digital assistant. Il exam information which is hard for the healtl		Foraco	ort 500	лс

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