Intelligent Laboratory Management Assistant
Doctor Evaluation Questionnaire

Basic Information

1. **Name**: _____Dr. Ernest Kamaro_____
2. **Specialty**: _____
3. **Years of Practice**: _____
4. **Facility Type**: ☐ Hospital ☐ Clinic ☐ Other: _____

Use Case 1: Routine Annual Check-up

"*Conducting an annual check-up for a male patient with a history of cardiovascular disease*"

The system accurately identified the appropriate consultation type based on my specialty. When I entered general information about the patient's history, the assistant recommended a comprehensive metabolic panel, lipid profile, and CBC, which aligned with standard protocols.

The lab test recommendations were clinically relevant, and I appreciated how the system highlighted the importance of checking LDL cholesterol given the family history. When lab results returned, the abnormal value highlighting (elevated LDL cholesterol) was clear and the comprehensive analysis connected this finding with the patient's family history.

Strengths in this scenario:

- Accurate test recommendations aligned with clinical guidelines
- Clear presentation of results with abnormal values highlighted
- Comprehensive analysis that connected findings with patient history

Areas for improvement:

- The initial workflow felt slightly rigid, requiring confirmation at each step

Use Case 2: Acute Abdominal Pain

"*As an emergency medicine specialist evaluating a female patient presenting with severe right lower quadrant pain, fever, and vomiting*"

For this urgent case, I needed to quickly order several tests. The system allowed me to set high priority for the lab request, which was intuitive. I appreciated how the system identified critical values requiring immediate attention when the results showed elevated white blood cell count and inflammatory markers.

The specialist recommendation feature worked well when the system suggested a surgical consultation based on the lab results and clinical picture. The escalation process to the general surgeon was smooth.

Strengths in this scenario:

- Priority setting for urgent lab requests was intuitive
- Critical value identification worked effectively
- Specialist recommendation was appropriate and escalation was efficient

Areas for improvement:

- The communication could be even more concise in emergency situations
- Would benefit from integration with imaging request systems

Use Case 3: Diabetes Management

"***As an endocrinologist following up with a 62-year-old female patient with type 2 diabetes and hypertension***"

The system excelled in analyzing the patient's history to suggest appropriate follow-up tests, including HbA1c, lipid profile, kidney function tests, and microalbumin. The pattern recognition across multiple test results was particularly valuable, as it identified a trend of gradually worsening kidney function that wasn't immediately obvious.

The comprehensive analysis provided valuable clinical insights regarding the correlation between the patient's glucose control and kidney function markers. This helped inform my treatment adjustments.

Strengths in this scenario:

- Excellent pattern recognition across multiple tests over time
- Valuable clinical insights for chronic disease management
- Appropriate test suggestions based on patient history

Areas for improvement:

- Could benefit from more specific treatment recommendations based on trends

System Usability

Lab Test Ordering Process

1. How would you rate the ease of finding and selecting the appropriate lab tests?
   - [ ] 1 (Very Difficult)
   - [ ] 2
   - [ ] 3
   - [x] 4
   - [ ] 5 (Very Easy)

2. Did the system accurately identify the consultation type based on your specialty?
   - [x] Yes
   - [ ] No
   - [ ] Partially

   Comments: _____

3. How helpful were the lab test suggestions based on patient history?
   - [ ] 1 (Not Helpful)
   - [ ] 2
   - [ ] 3
   - [ ] 4
   - [x] 5 (Very Helpful)

   Comments: _____

4. Rate the clarity of lab test descriptions and information:
   - [ ] 1 (Very Unclear)
   - [ ] 2
   - [ ] 3
   - [x] 4
   - [ ] 5 (Very Clear)

5. How intuitive was the priority setting for urgent lab requests?
   - [ ] 1 (Not Intuitive)
   - [ ] 2
   - [ ] 3
   - [x] 4
   - [ ] 5 (Very Intuitive)

Lab Results Review

1. How would you rate the clarity of the lab results presentation?
   - [ ] 1 (Very Unclear)

☐ 2
☐ 3
☑ 4
☐ 5 (Very Clear)

2. Were abnormal values appropriately highlighted?
   ☐ 1 (Not at all)
   ☐ 2
   ☐ 3
   ☑ 4
   ☐ 5 (Excellently)

3. How helpful was the comprehensive analysis of all test results?
   ☐ 1 (Not Helpful)
   ☐ 2
   ☐ 3
   ☑ 4
   ☐ 5 (Very Helpful)
   Comments: _____

4. Did the system appropriately identify critical values requiring immediate attention?
   ☐ Yes
   ☐ No
   ☑ Partially
   If no/partially, please explain: _____

Patient Referral/Escalation

1. How would you rate the specialist recommendation feature?
   ☐ 1 (Poor)
   ☐ 2
   ☐ 3
   ☐ 4
   ☐ 5 (Excellent)
   ☐ N/A (Didn't use)

2. Was the process of escalating a procedure to a specialist clear and efficient?
   ☐ 1 (Very Confusing)
   ☐ 2

- ☐ 3
- ☐ 4
- ☐ 5 (Very Efficient)
- ☐ N/A (Didn't use)

Conversational Interface

1. How would you rate the assistant's ability to understand your requests?
   - ☐ 1 (Poor Understanding)
   - ☐ 2
   - ☐ 3
   - ☐ 4
   - ☐ 5 (Excellent Understanding)

2. Was the assistant's communication:
   - ☐ Too verbose
   - ☐ About right
   - ☐ Too brief

3. How would you rate the medical accuracy of the assistant's responses?
   - ☐ 1 (Frequently Inaccurate)
   - ☐ 2
   - ☐ 3
   - ☐ 4
   - ☐ 5 (Highly Accurate)

   If inaccuracies were noticed, please describe: _____

Clinical Value

1. How would you rate the clinical relevance of the suggested lab tests?
   - ☐ 1 (Not Relevant)
   - ☐ 2
   - ☐ 3
   - ☐ 4
   - ☐ 5 (Highly Relevant)

2. Were the clinical insights provided with lab results:
   - ☐ 1 (Not Valuable)

- [ ] 2
- [ ] 3
- [ ] 4
- [ ] 5 (Highly Valuable)

3. How would you rate the system's ability to identify patterns across multiple test results?

- [ ] 1 (Poor)
- [ ] 2
- [ ] 3
- [ ] 4
- [ ] 5 (Excellent)

4. Did the system appropriately suggest specialist referrals when indicated by lab results?

- [ ] Yes
- [ ] No
- [ ] Partially
- [ ] N/A (No referrals needed)

Comments: _____

Time Efficiency

1. Compared to your current lab ordering system, this application is:

- [ ] Much slower
- [ ] Somewhat slower
- [ ] About the same
- [ ] Somewhat faster
- [ ] Much faster

2. How much time do you estimate this system could save you per day?

- [ ] No time savings
- [ ] 5-15 minutes
- [ ] 16-30 minutes
- [ ] 31-60 minutes
- [ ] >60 minutes

Overall Assessment

1. What features of the application did you find most valuable?
   - Intelligent test suggestions based on patient history

- The comprehensive analysis of lab results that identifies patterns and correlations.
- Accurate identification of abnormal values with clinical context

2. What features need improvement?
   - Workflow could be more flexible for different clinical scenarios
   - Integration with imaging and other diagnostic systems
   - More reporting options

3. What additional features would you like to see in future versions?
   - Integration with electronic health records
   - Ability to compare results with population norms
   - Visual trending of key values over time
   - AI-assisted treatment suggestions based on lab results

Technical Performance

1. How would you rate the overall speed and responsiveness of the application?
   - [ ] 1 (Very Slow)
   - [ ] 2
   - [ ] 3
   - [ ] 4
   - [ ] 5 (Very Fast)

Final Feedback

1. Overall satisfaction with the application:
   - [ ] 1 (Very Dissatisfied)
   - [ ] 2
   - [ ] 3
   - [ ] 4
   - [ ] 5 (Very Satisfied)

2. Any additional comments or suggestions:

Thank you for your valuable feedback! Your input will help us improve our medical lab assistant application.