ALRITE
(Acute Lower Respiratory Illness Treatment Evaluation)

A decision support tool for health workers in low-resource settings diagnosing respiratory illnesses, pneumonia and asthma, in children under 5 to increase the chances of correct diagnosis and proper treatment.

The app process should be quick so nurses can direct attention back to the child.

INTERVIEW

Technology cannot replace having good clinical skills but it can supplement them.

INTERVIEW

Textual information can be broken up and condensed into different screens.

COMPETITIVE ANALYSIS

Be transparent about how the app makes decisions and what resources it references.

USABILITY STUDY

The app encourages health workers to engage with results using their own clinical knowledge.

For All Expertise

Home page visually shows progress through the app and allows for easy navigation between sections.

Efficient Diagnosis

Diagnostic process utilizes card carousels to quickly answer and swipe through questionnaires.

Supports Clinical Knowledge

The app encourages health workers to engage with results using their own clinical knowledge.

PROCESS

Research
We conducted interviews with clinicians to understand the problem space and performed a competitive analysis on some competing products to analyze the design and structure.

Ideation
After identifying salient themes in clinicians’ stories and successful design trends, we used sketching and group critique sessions to ideate the user flow and interface.

Prototyping
Low-fidelity paper prototypes tested our initial concepts. Wireframes acted as templates for the high-fidelity mockups. A sitemap illustrated the app structure and navigation.

Evaluation
We focused on 3 heuristics: accessibility, efficiency, and ease of use. Clinicians as our target users provided technical feedback and considerations in our moderated usability study.

Iteration + Final
Evaluation and sponsor feedback were integrated into our interactive, high-fidelity prototype that diagnoses respiratory illnesses and recommends treatments.

FINDINGS

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USABILITY STUDY

“Agree”

“Disagree”

The child responded to the bronchodilator.

AGREE

DISAGREE

Replay audio for confirmation to bronchodilator response

The app encourages health workers to engage with results using their own clinical knowledge.