Reader Study Information (English)

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Thank you for participating in this important reader study. Your expertise is invaluable to our research on improving the diagnosis of neonatal pneumoperitoneum with AI assistance. Below you will find all the necessary information to complete the study.

Instructions for Readers

1. Study Access Link

You can access the reader study using the link below:

https://wowpc.net/nec_lat/

2. Sign-Up and Sign-in Instructions

Before your first sign-in, you must complete the sign-up process.

On the first page of the UI, click the **"Sign Up"** button and enter the following information:

- **Name**: This will serve as your unique ID for login. Please enter the ID in **lowercase** letters using the English name provided in the reference table, separated by an underscore.

  (Example: patrick_lenehan)

  ❗ Please make sure to remember this ID and use the **same ID for both sessions**, as it is necessary to track your results accurately.

- **Specialty**: Enter either **"radiology"** or **"pediatrics"**, depending on your specialty.

- **Title**: Enter **"specialist"** if you are a board-certified physician, or **"resident"** if you are a trainee.

- **Years of Experience**: Enter the number of years of clinical experience. (e.g., 1st year resident → "1")

- **Organization**: Enter the name of your current institution.

(Sign up interface)

3. Two Reading Sessions

This study is designed as a **crossover study**, and participants will complete **two separate interpretation sessions**.

There will be a **minimum 4-week wash-out period** between the sessions. We will notify you when the second session is ready to begin.

1) First Session
To begin your first reading session, please go to the instruction page within the UI and click the **"Version 1"** button at the bottom of the page.

2) Second Session
When the time comes for your second session, please access the instruction page again and click the **"Version 2"** button to proceed.
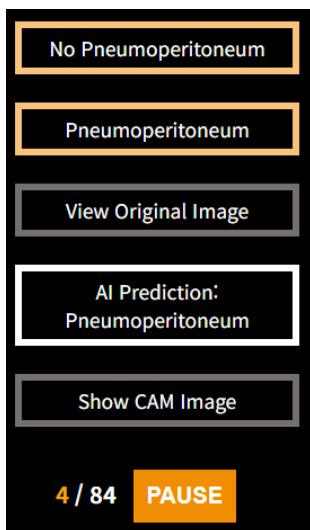
(This image shows the instruction page that appears after signing in.)

4. Study Workflow

In each session, you will review a series of neonatal abdominal X-ray images. After determining the presence or absence of neonatal pneumoperitoneum, click either the **"No Pneumoperitoneum"** or **"Pneumoperitoneum"** button to proceed to the next case.

- **Unaided Cases**: Interpret the images **without AI assistance**.

- **Aided Cases**: The AI model's prediction will be provided. You will also have the option to view the **Class Activation Map (CAM)**, which visualizes the regions the AI focused on during its prediction.

(In the Aided Mode: The AI model's prediction is shown under "AI Prediction," and the CAM can be viewed by clicking the "Show CAM Image" button.)

Thank you again for generously contributing your time and expertise to this research.

If you encounter any technical issues during the study, please contact **Professor Hee Mang Yoon** for assistance.