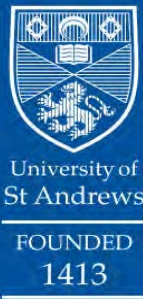


# HANDS-ON RETINOPATHY OF PREMATUREITY TRAINING WORKSHOP USING LOW COST SIMULATED EYES AND FRUGAL BINOCULAR INDIRECT OPHTHALMOSCOPE

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## BACKGROUND

- Retinopathy of prematurity (ROP) is a priority for public health. Teaching and training in LMIC remains an issue.
- Binocular indirect ophthalmoscopes (BIO) too expensive. Lancet Commission emphasises 'frugal' technologies [1].
- Global Health Team at University of St. Andrew's developed:
  - Arlight BIO (ABIO), a low-cost alternative that uses solar panels, rechargeable batteries, LED lights, and prisms, [2] (Fig. 1).
  - Arlight Simulation Eyes (ASE), with modifiable media and a range of fundus pathologies [3] (Fig. 2).
- Ferrara [4] reports the effects of COVID-19 upon training, recognising the importance of simulation-based modalities.
- The first practical, hands-on training ROP workshop was carried out in Indonesia.



## AIMS

To test the acceptance, ease of use, practicality, and efficiency of ABIO and ASE in the training of indirect ophthalmoscopy for the screening of ROP.

## METHODS

- Pre-workshop questionnaire to appraise baseline level and confidence
- 20-min training session with facilitators, ABIO and ASE
- Assessment at the end of the session



## RESULTS

Participants	Ophth. Trainees - 30	Other - 9
Ave. time in eye care	3.7 years	
Participants who owned BIO	5	
Access to BIO	University - 21 (74.3%)	Government - 4 (10.2%)
No access	7 (17.9%)	
Never performed ROP screening	11 (28.2%)	
No use of BIO in daily practice	10 (25.6%)	
>50 ROP screenings	16 (41.0%)	
Confidence levels	Baseline	Post-Workshop
In BIO skills	52.90%	73.90%
In ROP screening	41.00%	67.20%

## CONCLUSIONS

- First practical training for ROP screening using ASE & ABIO was successful.
- ABIO was easy to use, provided effective tool for screening training.
- Simulation eyes were readily accepted as a simple and innovative tool for learning.

## REFERENCES

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