

BOOST Android Manual

Background

Welcome to this Online Learning Module on the BOOST app for Android phones and tablets. BOOST is a simple tool for routine monitoring of cataract surgical outcomes.

Why is it important to measure quality of cataract surgery?

- Quality of surgery and resulting patient satisfaction are the engines that drive a sustainable cataract service.
- We must be able to measure quality before we can improve quality
- Cataract surgery is very effective.
- Regular monitoring, reporting and continuous quality improvement processes can enhance the surgeon's skills, patient's outcomes and hospital performance.

Informal WHO consultation (1998) advised the following benchmarks: "Visual outcome is considered 'GOOD' if more than 80% of the operated eyes can see 6/18 or better and less than 5% cannot see 6/60 with available correction. With best correction, more than 90% of the operated eyes should be able to see 6/18 or better."

For the WHO assessment, the visual acuity must be measured between discharge and 12 weeks post-operatively. The PRECOG study used data from 4000 patients at 40 hospitals in LMIC's, where few patients return after their operation. It demonstrated that assessment of vision at discharge (1-3 days after surgery) could provide a reliable index of quality.

How does BOOST work?

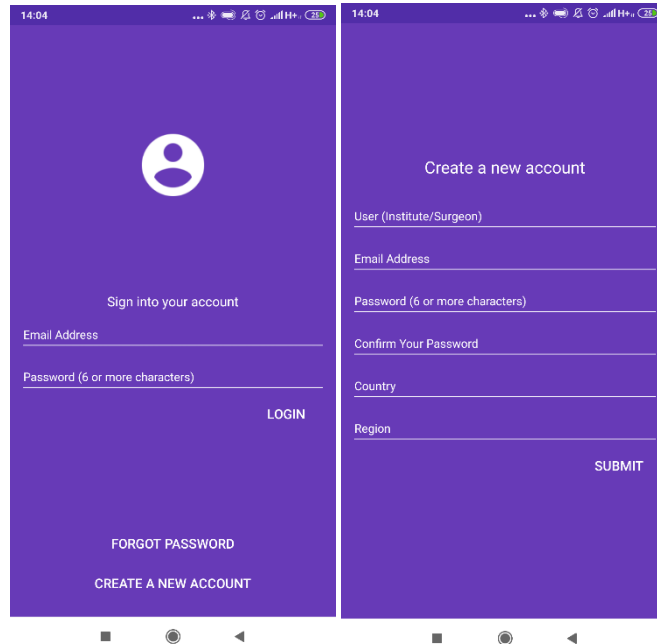
- **Phase I:** Assesses existing surgical quality from post-operative uncorrected VA measured 1-3 days after surgery. All patient data are anonymised.
- After 60 records, you can see your own performance in graphs and tables:
- You can also compare anonymously against other users in database, either locally or globally.

- **Phase II** analyses results from 20 consecutive cases with poor vision (<6/60) at 4-12 weeks after surgery. The causes of Poor Visual Outcome are recorded as:
 - Inappropriate case selection / co-morbidities
 - Surgical complications
 - Refractive problems or inaccurate IOL
- BOOST suggests specific measures to correct the most common cause(s) of poor results

BOOST Synchronises data across all devices through cloud computing and displays on PC and Android devices. You must have an internet connection to synchronise your BOOST data.

How to use BOOST (Android Version)

1. Download BOOST for your Android smartphone by:
 - Searching **'BOOST cataract'** in Google play or android store
 - OR, go to: https://play.google.com/store/apps/details?id=org.hollows.boost&hl=en_AU
2. Once BOOST has finished downloading, open the app or find the BOOST icon on your phone:
3. Select **'Create a new account'** or login using your email ID and password if you already have an account:



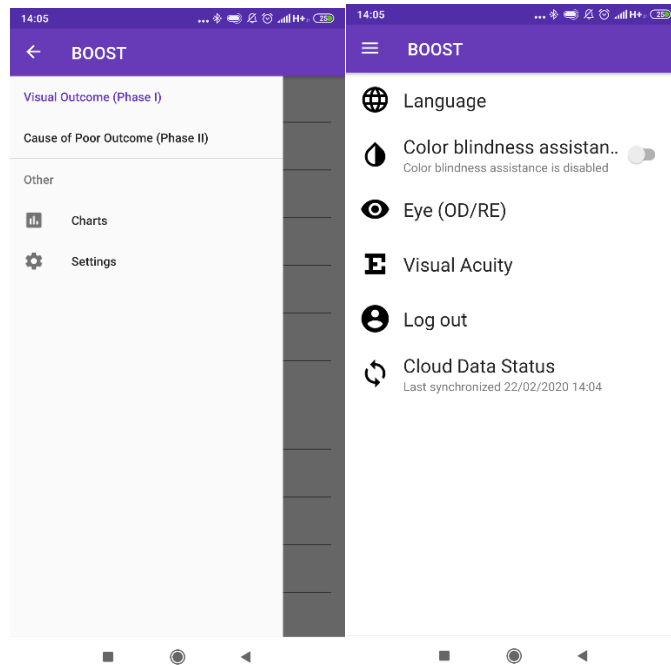
When registering a new account, you can use any email and name. Ensure you keep your password in a safe place. If you forget ever forget your password, select **'forgot password'** and follow the prompts.

4. When you sign in to BOOST for the first time, a dialogue box will appear. Please read this information. You can restart the dialogue at any time by navigating to **Main** menu, the three bars in the top left corner.



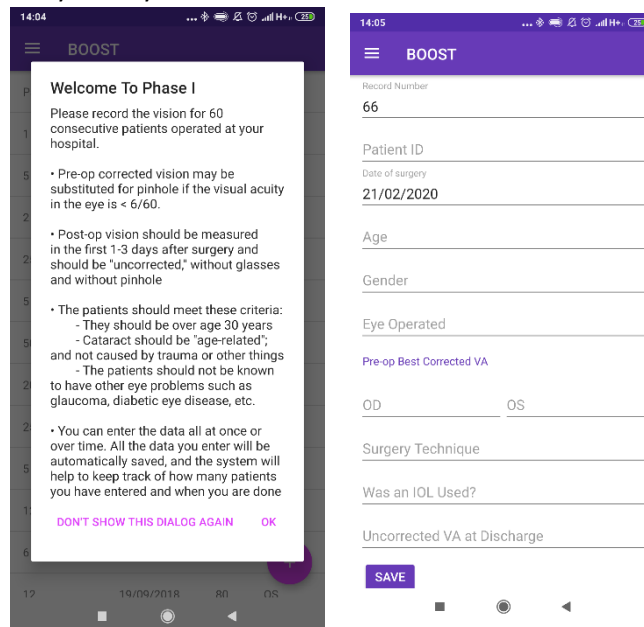
5. Click **Settings** to select your language and preferences:

- **Language** (English, Spanish, French, Russian, Chinese, Indonesian, Vietnamese)
- **Eye indication** (OD/OS, RE/LE)
- **Visual Acuity measurement** (Feet, Metres, LogMar, Decimal, Francophone)



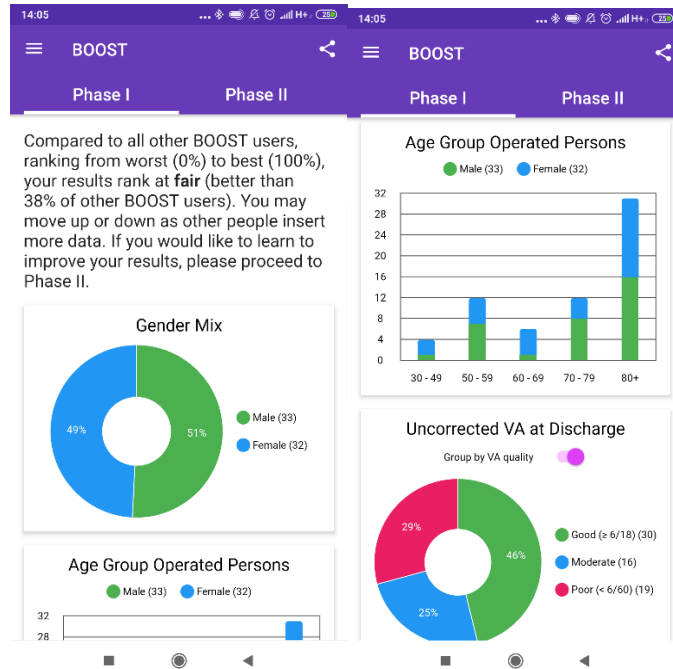
6. If you already have BOOST account, your records will automatically be synchronised with the BOOST database, whenever there is a working internet connection.

7. You are now ready to start entering data. Select **Visual Outcome Phase I**. Follow the prompts to enter Phase I data. In Phase I, you record the vision for 60 consecutive patients receiving cataract surgery. You will then be able to compare your result anonymously with all other records in the database.

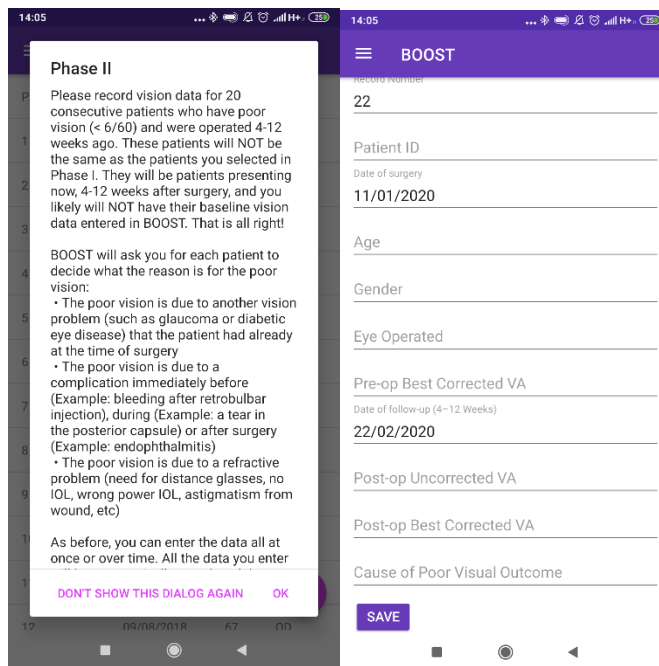


8. Criteria for inclusion of the 60 patients are: age between 30 and 120; only age-related cataract and no other eye problems like glaucoma, diabetes, etc. You can enter the data all at once or one by one over time. The system will help to keep track of the number of patients entered and when you are done.

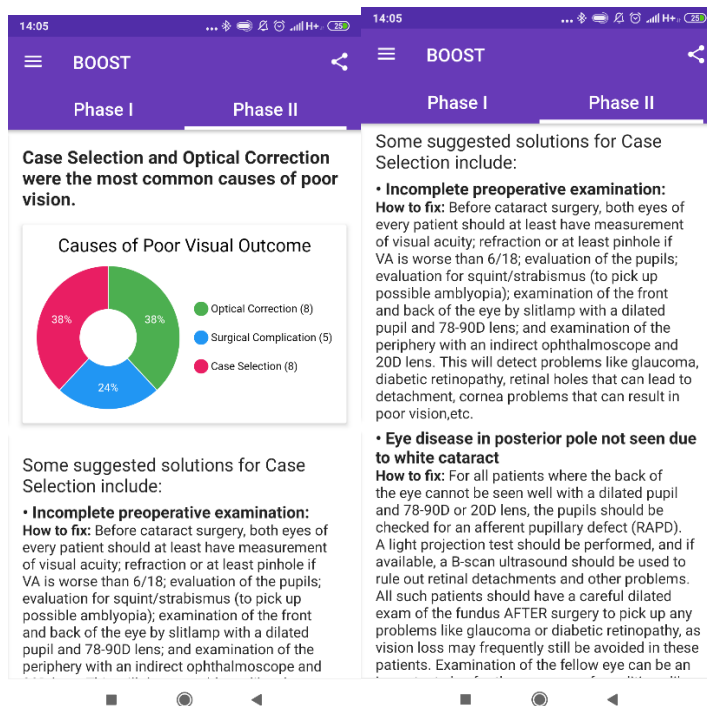
9. **When you have completed 60 records**, you will receive an automatic result comparing your outcome results against that of other BOOST users. Select ‘**Charts**’ in the main menu to graphs showing composition by age group and by gender; and Uncorrected VA outcomes at discharge as ‘Good’, ‘Moderate’ or ‘Poor’. You can export the graphs and any raw data via email by clicking the three dots in the top right corner.



10. You are now ready to commence **Phase II**. Select **Causes of Poor Outcomes (Phase II)** from the main menu. For Phase II, enter 20 consecutive patients who cannot see 6/60 (poor vision) 4 to 12 weeks after their surgery. For Phase II, you are asked to select the reason for poor outcomes. There are three options based on the most common causes of poor outcome: poor case selection, surgical complications and poor optical correction. You can select 'not applicable' if none of these causes apply.



11. Once you have completed 20 records, BOOST will automatically provide suggestions how to improve visual outcome based on your own results. You can navigate back to these results at any time via **Charts**:



12. For the BOOST research study, you can now return to Phase I and enter an additional for 60 consecutive patients receiving cataract surgery. If you are not a participant in the BOOST research study, you can continue to use BOOST to monitor your performance.

13. You can access your BOOST account and data at any time using your login details via:

- Android smartphone app
- PC version
- Online version

For any questions or issues, contact BOOST@hollows.org