

**Lao People's Democratic Republic
Peace Independence Democracy Unity Prosperity**

Oudomxay Provincial Health Department
Oudomxay Provincial Hospital
Lao Rehabilitation Foundation

No. 1373.../PH.ODX

Oudomxay, Date 17/8/019.....

RESULT OF CATARACT SURGERY MISSION AND MONITORING OF POST OPERATIVE OUTCOME

in 2 Districts (Houn and Beng) of Oudomxay Province



May 13, 2019 – June 25, 2019

Oudomxay Eye Unit, Oudomxay Provincial Hospital

in Partnership with

**Lao Rehabilitation Foundation, Inc.
SEE International and
Fred Hollows Foundation**

I. BACKGROUND INFORMATION

Cataract is the main cause of blindness in Laos and 0.1% of the population develops visually significant cataracts each year.

During 2012–2017, a total of 5,025 cataract surgeries were performed in the four Northern provinces of Lao PDR. 4,499 cases (89.53%) were performed in a mobile clinic setting and 526 cases (10.47%) in a hospital setting.

Since 2009 Lao Rehabilitation Foundation (LRF), has provided IOL and supplies for a yearly mobile cataract surgery mission. The number of patients having greatly increased, starting in 2017, LRF is providing assistance for two missions per year. The outcome of these missions has been highly successful.

Considering that most patients don't have easy access to the hospital, starting in 2019, LRF provided additional assistance for post surgery follow up.

These secondary missions are important and necessary to improve the vision of patients and to monitor the post surgery outcome.

II. OBJECTIVE

- To reduce avoidable blindness in Lao PDR
- To detect avoidable causes of blindness in the poor population of Oudomxay
- To provide sight restoring interventions
- To improve cataract surgical outcomes
- To be effectively integrate follow up into routine surgical care

III. LOCATION AND DURATION

For surgery:

- At Beng district hospital: May 13-14, 2019
- At Houn district hospital: May 15-17, 2019

For monitoring:

- At Beng district hospital: June 24, 2019
- At Houn district hospital: June 25-26, 2019

IV. TEAMWORK AND ASSISTANTS

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|---------------------------|----------------------------|
| 1. Dr. Luc Janssens | President of LRF |
| 2. Phetsamone Indara, MD | Ophthalmologist |
| 3. Phonethavy Inthavongsa | Ophthalmic nurse |
| 4. Ms. Khamman | Ophthalmic nurse assistant |
| 5. Mr. Thongdam | Ophthalmic nurse |
| 6. Ms. Sommee | Ophthalmic nurse |
| 7. Ms. Koy | Assistant LRF |

VI. INSTRUMENTS AND MEDICINE

This mission was performed using quality modern equipment intended for cataract surgery, refraction exams, effective medicines for treatment and monitoring. Equipment and supplies were provided by LRF in cooperation with SEE International (Surgical Eye Expeditions of USA) and Fred Hollows Foundation. It included:

1. Phacoemulsification machine (Amo Sovereign Compact)
2. Surgical instruments, equipment and supplies
3. Medical supplies for cataract surgery
4. Medicine for eye care service
5. Autorefractor (Retinomax)
6. Glasses

VII. ACTIVITIES PERFORMED

1. Finding Cataract Cases

- The local ophthalmic nurses went to screen the vision of older people in remote villages to find patients with cataract and appoint them at a date and location to be treated.
- Advertisement was done by billboards and paper.

2. Cataract Surgeries

Surgeries were performed by phacoemulsification. Hard cataract cases were performed by manual small incision (MSICS) techniques.

3. Outcome Monitoring

There were 2 phases: Phase 1 recorded on the day of discharge and Phase 2 recorded on post operated 4-6 weeks later.

1. Phase I: Assessed 1-3 days after surgery:

- Date of surgery
- Patient age and gender
- Eye Operated
- Pre-Operative best corrected VA
- Post-Operative Uncorrected VA in the operated eye at discharge
- Surgical technique (Phaco, SICS, ECCE)
- Use of IOL (Yes/No)

2. Phase II: Assessed 4-5 weeks post surgery

- Date of follow-up (between 4 to 6 weeks)
- Post-Operative presenting VA
- Post-Operative best corrected VA
- Cause of poor visual outcome (Refractive problems, Surgical Complication, Inappropriate Case Selection/co-morbidities)

4. Refractive Service

All patients with blurred vision without cataract or retina diseases were given refractive exams by autorefractor (Retinomax) and were provided with appropriate glasses to improve their vision.

VIII. RESULT

1. Cataract Surgery Outcome

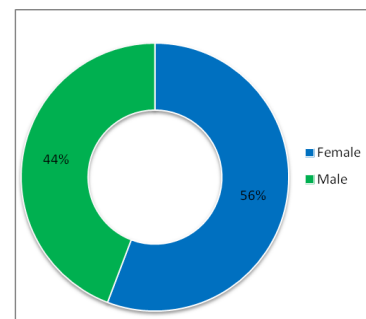
A total of 310 patients (F 174) were examined, 52 (F29) cataract surgeries were performed as follow:

- By Phacoemulsification 43 cases
- By MSICS 09 cases

PHASE I:

- Patient age and gender

Age group (year)	Female	Male
1-14	0	0
15-49	2	3
50-59	2	3
60-69	7	7
70-79	10	9
+80	8	1
Total	29	23



- Eye Operated

Eye operated	Qty.	Percent
Right eye (RE)	24	46.15%
Left eye (LE)	28	53.85%
Total	52	100.00%

- Pre-Operative best corrected visual acuity (VA) in the operated eye

Vision level	Qty.	Percent
Good ($\geq 6/18$)	0	0.00%
Moderate ($< 6/18-6/60$)	8	15.38%
Poor ($< 6/60$)	44	84.62%
Total	52	100.00%

- Post-Operative Uncorrected VA in the operated eye at discharge

Vision level	Qty.	Percent
Good ($\geq 6/18$)	16	30.77%
Moderate ($< 6/18-6/60$)	33	63.46%
Poor ($< 6/60$)	3	5.77%
Total	52	100.00%

- Surgical technique (Phaco, SICS, ECCE)

Technique	Qty.	Percent
Phaco	43	82.69
SICS	9	17.31
ECCE	0	0.00%
Total	52	100.00%

- Use of IOL (Yes/No)

Use of IOL	Qty.	Percent
Yes	52	100.00%
No	0	0.00%
Total	52	100.00%

PHASE II:

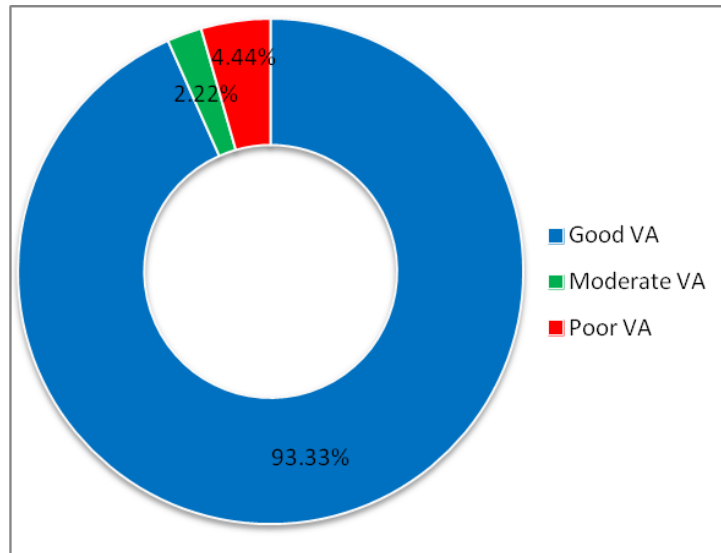
A total of patients 45 were examined, 7 patients could not be found (1 patient died, 3 patients had gone out and 3 patients live far from district)

- Pre-Operative presenting VA

Vision level on eye operated	Qty.	Percent
Good ($\geq 6/18$)	38	84.44.08%
Moderate ($< 6/18-6/60$)	5	11.11%
Poor($< 6/60$)	2	4.44%
Total	45	100.00%

- Post-Operative best corrected VA

Vision level on eye operated	Qty.	Percent
Good ($\geq 6/18$)	42	93.33%
Moderate ($< 6/18-6/60$)	1	2.22%
Poor($< 6/60$)	2	4.44%
Total	45	100.00%



- Cause of poor visual outcome (Refractive problems, Surgical Complication, Inappropriate Case Selection/co-morbidities)
2 patients had poor visual outcome at 6 weeks post-operation:

Cause	Qty.	Percent
Refractive problems	0	0.00%
Surgical Complication	0	0.00%
Inappropriate Case Selection/co-morbidities	2	
Total	2	

- Cataract surgery had a good outcome for more than 80% of the patients with good visual acuity and all without infection.

2. Other Surgery Outcome

A total of 13 other surgeries were performed as follow:

- Pterygium 09
- Entropion 03
- Tumor upper lid 01

3. Refractive Service Outcome

A total of 172 patients were examined for corrective refraction. 153 pairs of glasses were provided as follow:

- | | |
|-------------------------|----|
| – Myopia | 51 |
| – Hyperopia | 34 |
| – Presbyopia | 26 |
| – Post cataract surgery | 42 |

IX. BUDGET-EXPENDITURE

The actual expenditure for this mission was 25,700 USD, supported by Lao Rehabilitation Foundation, Inc. in cooperation with SEE International and a minor contribution from the Fred Hollows Foundation. It included:

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|---|------------|
| – Medical supplies for cataract surgery | 15,600 USD |
| – Glasses | 400 USD |
| – Medical equipment provided to ODX provincial hospital | 2,800 USD |
| – Transportation/Accommodation for LRF team | 4,800 USD |
| – Perdiem/Accommodation for Lao team | 840 USD |
| – Preparing/Finding cataract patients | 400 USD |
| – Food, drinking and other | 600 USD |

X. NEXT MISSION PLANNING

- Continue to provide mobile eye care (cataract surgery by phacoemulsification) in remote areas of 2-3 districts during October 2019.
- Continue refraction exams and provide eyeglasses as needed.

Director of Oudomxay



ດຣ. ຄຳພັນ ໄຊຍະວົງ
Dr Khamphan XAYAVONG

Presenter

ດຣ.ເພັດສະໝອນ ອິນດາລາ
Phetsamone INDARA MD.