

# Cataract and Pterygium Surgery Program, Panama, Bocas del Toro

## GENERAL INFORMATION

Location: Bocas del Toro, Panama

Program Coordinator:

- Samantha Horn - executive director Floating Doctors
- Dr. James Russel Burcham and Mrs. Vicki Burcham- Head Ophthalmologist and Trip Lead Organizer
- Renee Miller- Head OR nurse, team design and supply coordinator
- Diane Edrington-Medical Director Panama Missions Medical
  
- Iris Ertugrul - Project manager
- Sonja Spindler - LMP on Base, recruiting of Patients

Program Duration: Annually, 1 week

## BACKGROUND

As people in the world live longer, the number of people with cataracts is anticipated to grow. Cataract is an important cause of low vision.<sup>1</sup> Vision impairment poses an enormous global financial burden, with the annual global cost of productivity estimated to be US\$ 411 billion.<sup>2</sup> Spectacle correction for refractive error and surgery for cataract are among the most cost-effective of all health-care interventions but although cataract can be easily surgically operated, in many countries access to eye care is limited. It is estimated that globally only 17% of people with vision impairment due to cataract have received access to an appropriate intervention.<sup>2</sup> Worldwide there are over 94 million people suffering from cataract<sup>2</sup> and in our clinics we see patients with cataracts on a daily basis. Therefore, during our clinics, we began tracking patients with vision problems who would be eligible for cataract surgery. Meanwhile, we have over 200 patients with vision problems due to cataracts in our patient database. The populations we care for have no way of paying for the expensive cataract operations themselves (starting around 1500\$) and often do not have insurance to cover these costs. As a result, we see many (young) otherwise healthy people who are unable to work properly due to their cataracts and therefore cannot provide money and food for their families. For that reason we would like to set up this project to give people back their sight, and with that the possibilities to work or take care of their family, with a relatively easy surgery.

References:

1. <https://www.emro.who.int/health-topics/ataract/>
2. <https://www.who.int/news-room/fact-sheets/detail/blindness-and-visual-impairment>

## UN SUSTAINABLE DEVELOPMENT GOALS (SDGs) ADDRESSED

- Good Health and Well-being

- No Poverty
- Zero Hunger
- Reduced Inequality

## THE PROBLEM

As described in the background, Floating Doctors sees many patients who, because they have vision problems due to cataracts, can no longer work or care for their families and themselves. The patients we care for have little access to gainful employment and therefore no financial ability of their own to pay for surgery. Because they do not have paid work, they almost always do not have insurance that would cover treatment. Because of this, we see a lot of otherwise healthy people who would like to work, but are unable to because of their sight problem and thus only get deeper into poverty.

Currently we have over 200 patients with vision problems due to cataracts on our waiting list who would qualify for cataract surgery and would benefit greatly from it, but cannot afford it themselves and have no insurance. For these people it is vitally important to get this surgery so they can regain their own income and food for their families or resume other household tasks.

## THE SOLUTION

By working with several ophthalmologists to perform one week of cataract surgery, we want to help a large number of patients with vision problems due to cataracts. The goal is to do this project once or twice a year where we want to treat 40 patients each day. The patient's problem can be completely solved with one or two surgeries and the necessary follow up can continue to be performed by floating doctors.

## THE GOALS

To identify patients who will benefit from cataract surgery, perform cataract surgery on 40 patients per day during the surgery week and provide proper follow up after surgery. The goal is to grow this project into a sustainable project where we organize 1 or 2 surgery weeks every year.

## THE PROGRAM

### Stage 1: Preparing

- 1 year to 6 months before surgery week
  - Identify patients with cataracts during clinics, make a good description including photos in the patient's file and expand waiting list
  - Collect detailed data on patients eligible for cataract surgery (including phone numbers and contact person)
  - Health education classes on cataract and the possibility of surgery
  - Organize contact with hospital about availability OR room, materials
- 6 months to 3 months before surgery week:

- o Review and selection of final patients
- o Verification of patient data. Gather detailed contact data of all selected patients including phone numbers and 1st contact person (in case of emergency number)
- o Provide information to patients about procedure, transport and follow-up (via information leaflet and health education)

### Materials:

- Information leaflets
- Database (Excel to track waiting list, patient information)

### Roles:

- *Health educator*: responsible for providing information through classes and information leaflets
- *LMP*: responsible for collecting appropriate data and completing database
- *Executive director*: contact with hospital about availability of OR room and materials

## Stage 2: transport + lodging

- 3 months before surgery week: finish week schedule and plan the transport. Every day will be divided between different community(s), so they can be transported in groups to Bocas.
- 3 months before surgery week: organize the accommodation and food for patients the day of surgery
- 2 weeks before surgery: contact all patients who will be operated on to confirm logistics

### Materials

- Boat(s) + gasoline
- Lodging
- Food

### Roles

- Facilities manager: prepare boat schedule
- Project manager:
  - o organize lodging and food
  - o organize contact with all patients 2 weeks prior to surgery

## Stage 3: Surgery

- Final screening before operation
- Surgery will be performed by the ophthalmologist.
- Lodging after operation?

### Materials:

- Operation room/sterile environment to work in
- Sterilization room/autoclave
- OR equipment
  - o OR cataract set
  - o Cataract machine + addendums
  - o Lenses
  - o Chair for patients

- o Chair for ophthalmologist
- o Microscope

### Roles:

- *Ophthalmologist(s)*
  - o final screening of patient before performing surgery
  - o Performing the operation
- *Operating assistant(s)*: assisting before/after/during operation
- *LMP*: making sure the organization runs smoothly, available to answer questions
- *Hospital*: providing operation room, providing room for sterilization of materials

### Stage 4: Follow up.

- Takes place on the day of OR and 10 days after
- Information pamphlets are given to all patients explaining alarm symptoms, complications and contact number of Floating Doctors in case of complications.
- Ophthalmologists give good explanation to LMPs how to follow up in the longer term, what alarm symptoms to pay attention to, and how to act in case of complications
- Provide contact number for follow up/in case of complications to all patients
- Evaluation during follow up and at next visit to community

### Materials:

- Boat + gasoline
- Eye drops
- Information pamphlets

### Roles

- *Facilities manager*: organize transportation back to communities
- *Ophthalmologist(s)*: makes policy for follow up and implements it himself or delegates follow up to floating doctors' LMPs after proper explanation
- *Health education*:
  - o Makes information leaflets for all operated patients
  - o Gives clear explanations on the day of OR about what patients can expect and what to do in case of complications
- *LMP*:
  - o Works with health educator to ensure that clear explanations are given to patients
  - o Works with ophthalmologist to ensure proper follow-up is done Stage

### Stage 5: Evaluation

- At the first follow up and the first visit to the community, we will discuss with the patients how they experienced the project through a questionnaire and by asking what they felt went well or badly during the project and what their areas for improvement would be.
- 2-4 weeks after the project there will be an evaluation with the OR team, the hospital and Floating Doctors.

### Materials:

- Questionnaire
- Online meeting

## Roles:

- *LMP:*
  - creates the questionnaire
  - organizes the online follow-up with the team
- *Float LMP:* makes sure the follow up is done during the next clinics

## MILESTONES

1. Detailed curriculum is developed
2. Patients that will participate have been selected + briefing about procedure, transport will be given
3. Patients that will participate will be transported to Bocas
4. Selected patients will be operated
5. Follow up of all patients that have been operated will be done
6. Patients will be transported back to their communities
7. Second follow up
8. Evaluation during next visit of community of patient

## KEY PERFORMANCE INDICATORS (KPIs)

Define the numbers/statistics that will be collected during the program to measure its impact and results.

- Number of patients screened
- Number of patients operated
- Number of patient with good outcomes (significant change in sight + ability to work/function again)
- Number and details of complications