

# ADMINISTRATIVE CHALLENGES IN CONDUCTING CATARACT SURGERIES



Before Surgery

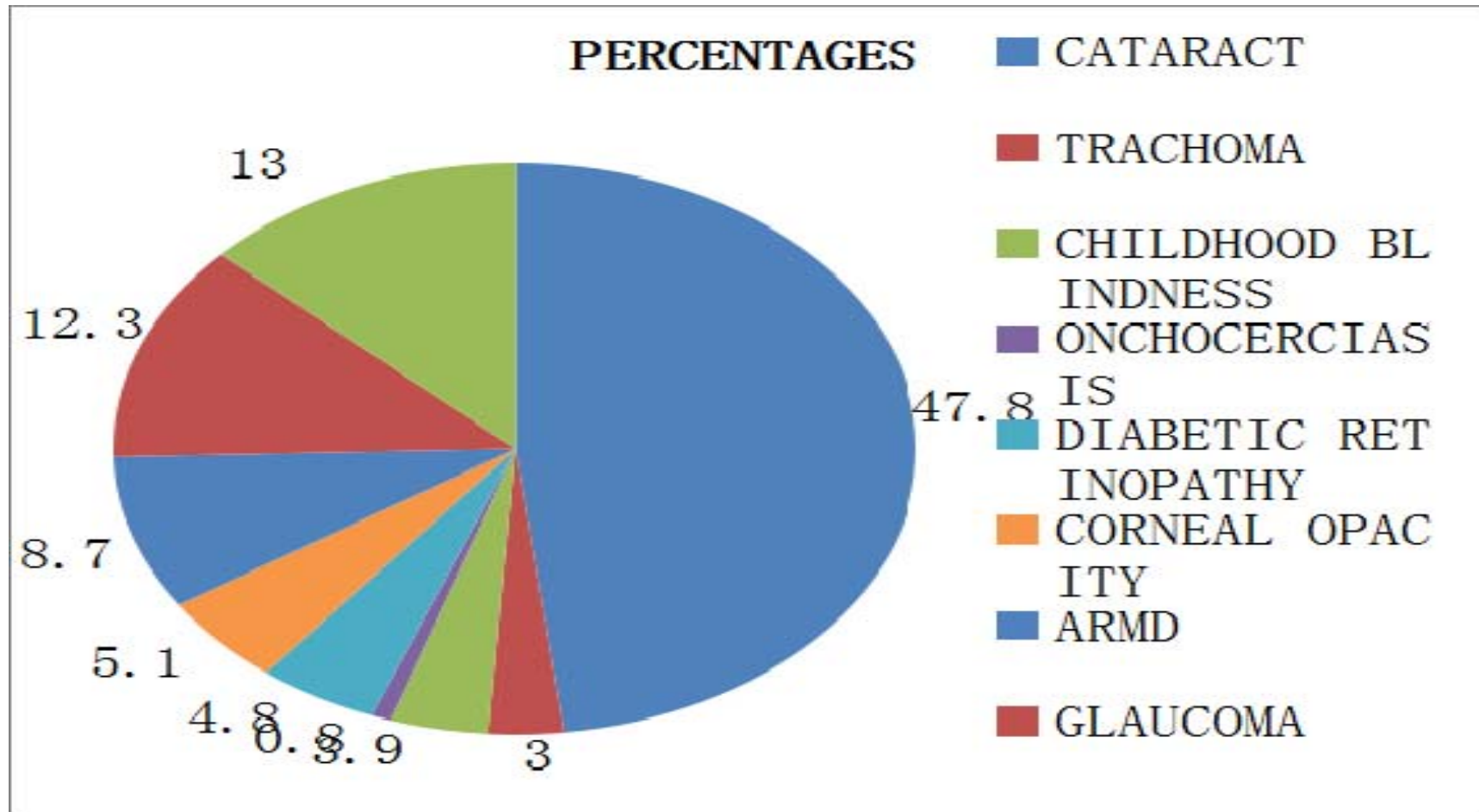
Dr. Y. Shrikanth  
II year Post Graduate  
Department of Hospital Administration

# OUTLINE OF PRESENTATION

- INTRODUCTION
- INDIAN SCENARIO
- OVERVIEW OF CATARACT SURGERIES IN KIMS
- ORGANISING CAMPS
- OT REQUIREMENTS
- PATIENT CARE
- LEGAL ISSUES
- CONCLUSION

# INTRODUCTION

# INDIAN SCENARIO CAUSES OF BLINDNESS



- National Programme for Control of Blindness(1976).
- District Blindness Control Society (DBCS).
- 1999 – Camp Based surgeries.
- Role of Non Government Organisations (NGO's).
- Vision 2020 : Right to sight India.

## Contd..

- As there was an increased backlog of cataract surgeries to be done, N.G.O's were also inducted into the programme to meet with the demand of disease burden.
- KIMS as an NGO is also a part of this programme.


ROLE OF  
KAMINENI INSTITUTE OF MEDICAL SCIENCES  
IN  
CATARACT SURGERIES

## Statistics for the year January 2014 to December 2014.

	male	female	total
Jan-14	175	113	288
Feb-14	166	127	293
Mar-14	188	113	301
Apr-14	79	104	183
May-14	70	96	166
Jun-14	85	105	190
Jul-14	234	121	355
Aug-14	104	110	214
Sep-14	99	138	237
Oct-14	92	108	200
Nov-14	99	120	219
Dec-14	110	144	254



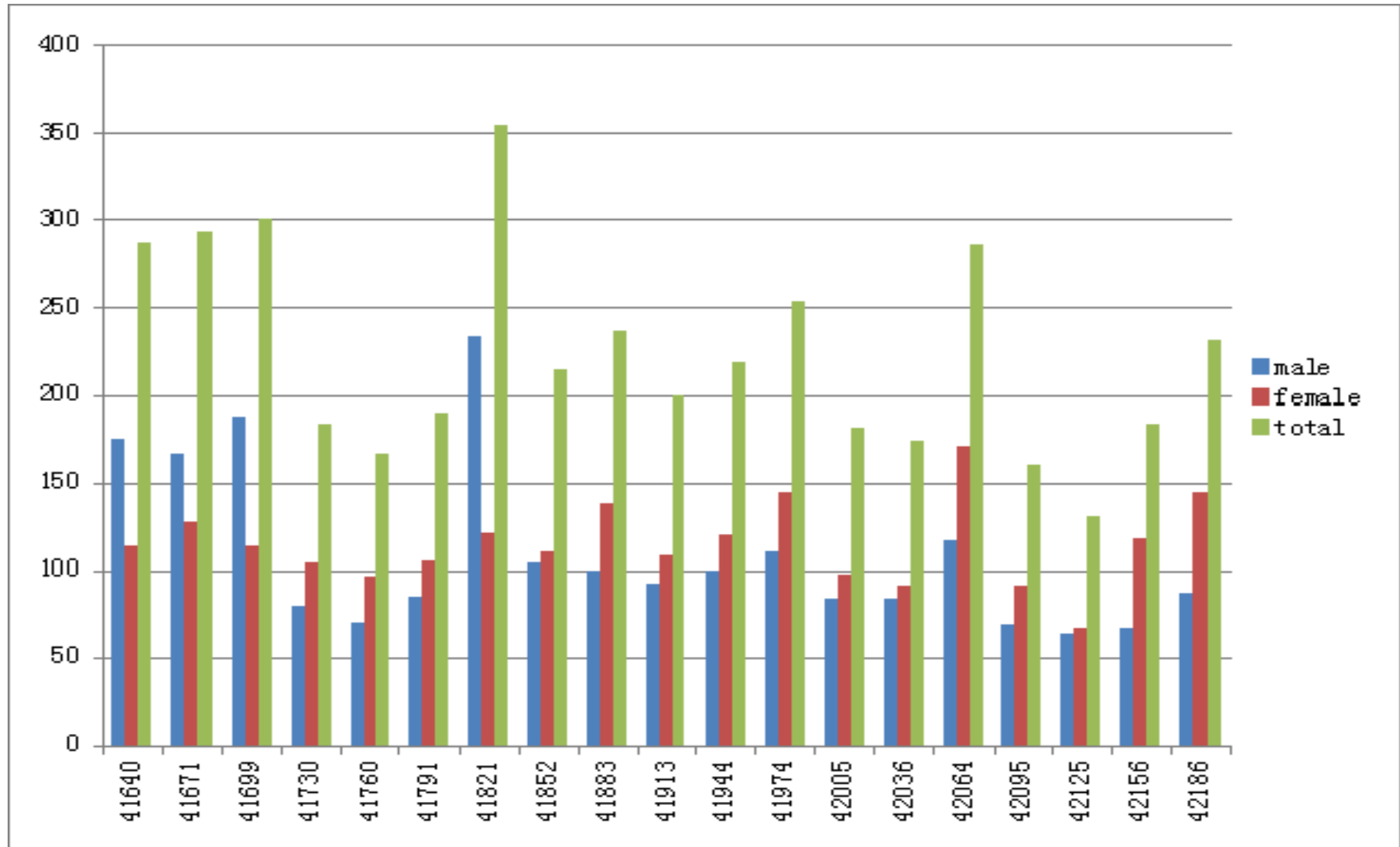
## Statistics for the year January 2015 to July 2015.

 MNTB	male	female	total
Jan-15	84	97	181
Feb-15	83	91	174
Mar-15	116	171	287
Apr-15	69	91	160
May-15	63	67	130
Jun-15	66	118	184
Jul-15	87	144	231

Average cases per month are 223 with an average of 8 cases per day.

Maximum cases operated were in July 2014

# OVERVIEW OF CATARACT SURGERIES IN KIMS



# Role of Hospital Administration in Cataract

11

## Surgeries: An overview

- Ensuring quality has become integral to the efforts at taking care of the immense burden of blindness in India.
- Every organization strives for value and volume growth. These are primarily driven by better quality of services and products, higher volumes of satisfied clients.
- Safety plays a major role in creating higher value and volume.

# Contd...

- Management of cataract is a multi-professional approach, which involves inputs from
  - Ophthalmologists,
  - Optometrists,
  - Ophthalmic assistants,
  - nurses and technicians.
- The ultimate responsibility for diagnosis and management of the patient lies with the ophthalmologist in charge.

- The other personnel involved are the
  - a) Marketing staff
  - b) Public relations officers
  - c) Laboratory staff
  - d) Central stores personnel
  - e) House keeping staff
  - f) Security personnel
  - g) Central Sterilisation and Supplies Department
  - h) Biomedical engineering department.

All of the above in liaison with the Administration and Ophthalmic team work effectively and efficiently.

As a part of District Blindness Control Society Programme :

- The hospital has to get into an Memorandum of Understanding (MoU) with the District Blindness Control Society (DBCS).
- District Medical and Health Officer (DM&HO)

# ORGANISING OUTREACH HEALTH CAMPS

- In collaboration with DBCS, K.I.M.S, Narketpally is in consistent with the Mission, to make available basic and advanced Medical care to under served population residing in Rural areas and has started out reach health activities.

## PRE CAMP PREPARATION:

- The following data will be collected,
  - a) Demographic details of the area to be outreached
  - b) Map of the village/ mandal
  - c) Disease burden
  - d) Local political leaders
  - e) Organised bodies
  - f) Government Health workers
  - g) Community volunteers
- Contacting people who had underwent surgery before.



## PRE CAMP SURVEY AND CAMPAIGNING:

- Visiting the area before hand.
- Announce the date of camp.
- Convincing the patients to have an eye check up, making them comfortable with the “white coat”.
- To overcome social and cultural barriers.
- Intimation regarding the required documents.
- Giving prior registration numbers to avoid overcrowding.
- Arrangement of vehicle through Chief Security Officer.

## SERVICES TO BE DELIVERED AT OUT REACH SITE:

- a) Out patient services
- b) Screening for cataract
- c) Health education and counselling
- d) Referral
- e) Follow up

## ON THE DAY OF CAMP :

- To maintain timings for pick up of staff to reach site.
- Install setup for screening.
- Availability of Ophthalmic Assistants
- Equipment to be carried to the site of camp.
- Screening of the patients', if field based camp, or in case of hospital based camp bringing the patients to the Hospital and doing the same.

# PATIENT CARE

# OT REQUIREMENTS IN HOSPITAL SETTING

- 1. Size:** Optimum size is 18'x18'.
- 2. Waiting hall:** for patients attendants, visitors in adjacent area with facilities
- 3. Walls:** height upto 12 feet, fully covered with tiles, JOINTS to be seamless. dull stainless steel sheet for easier cleaning, washing
- 4. Doors and Windows:** of two leaves, double acting and 5' wide. Windows 3' above floor – opening to be 16-20% of floor area with double glass hermetically sealed

# Contd..

**5. Fixtures & Installations:** Should be Minimum.

OT tables should be positioned on the floor with piped services from the floor

6. All **electrical outlets** to be at 4'- 5' height

7. **Fire fighting** equipment to be available

8. **Floor:** washable, non-staining, impervious and electro-conductive.

9. **Ceiling:** moisture-proof: False ceiling to be avoided except when laminar air-flow is required. Wall joints to be well finished.

# Contd..

**10. LIGHT:** 40,000 lux at the site of incision. To be on UPS.

**11. AIR-CONDITIONING:** Central air-conditioning preferred as it helps in maintaining asepsis.  
TEMP: 70 deg. F Humidity: 50 %. 100% fresh air with 20 air-changes per hour.

**Air filter:** 1-3 microns, HEPA filters are more efficient for laminar flow, allow recirculation of air.

# VENTILATION SYSTEM

- Positive Pressure System.
- Pressure gradient should be higher in sterile zone.
- Pressure gradually diminishes towards the clean, protective and disposal zones.
- No mixing of air from one operation theatre to another.
- Air turbulence velocity should not be more than 10' per metre at the table.



# POLICIES, PROCEDURES

1. Informed consent.
2. Operating list to be judicious
3. Aseptic measures documented
4. Good inventory control of consumables
5. OT registers to be maintained
6. OT Committee

# IMPORTANCE OF DISINFECTION AND STERILISATION

# DISINFECTION

- **Phenol ( Carbolic acid 2%)**

Used for

- a) Washing floor
- b) Mopping

# OT STERILISATION

## FORMALDEHYDE FUMIGATION

- For an area of 1000 cu.ft
- REQUIREMENT:
- 500ml of 40% formaldehyde in 1 litre of water
- Stove or hot plate for heating formalin
- 300 ml of 10% ammonia

- **COMMERCIALY AVAILABLE DISINFECTANTS:**

- a) **Bacillocid special:**

- composition : dihydroxyl, glutaraldehyde, benzalkonium chloride, alkyl urea derivatives

- Sprayed or mopped(3 bucket system) allowing 30 minutes contact time

- b) **Virkon sol**

## ULTRAVIOLET RADIATION

- Daily U.V irradiation is done for 12 to 16 hours
- To be switched off 2 hours before surgery

# EQUIPMENT STERILISATION

## METHODS :

1. Autoclave
2. Hot air oven
3. Glutaraldehyde 2%
4. Ethylene oxide (ETO)
5. Ultrasonic cleaner

Autoclave



Ultrasonic cleaner



Ethylene oxide (ETO)





- MAINTAINING QUALITY IN OPERATION  
THEATRE
  1. Swabbing and culture for bacteria.
  2. Settle plate method (once a month- blood agar).
  3. Bacterial colony count of more than 10 per plate and fungal colony count of more than 1 per plate are considered unacceptable.

# PRECAUTIONS THAT REDUCE RATE OF INFECTION

- Infection control committee
- Restricted entry for unnecessary personnel
- Curtailing movements in and out of OTs
- Keeping floor dry
- Prompt Disposal of waste
- Regular surveillance of cultures

# EQUIPMENT MANAGEMENT

- SPECIFICATIONS
- TENDERING
- NEGOTIATIONS
- PURCHASE ORDER
- PROCUREMENT
- INSTALLATION
- MAINTENANCE(PREVENTIVE, OPERATIONAL AND CORRECTIVE)
- CONDEMNATION

# SPECIFIC OPHTHALMIC OT EQUIPMENT

- Operating microscope with co axial illumination and foot pedal controls
- Operating table adjustable for height and tilt
- Surgery trolley
- Chair- adjustable
- Phaco emulsification machinery
- Cryo surgical system
- Bipolar cautery, Diathermy
- Indirect ophthalmoscope
- Crash cart with Emergency resuscitation equipment

# CONSUMMABLES REQUIRED

- small incision sets
- Intra ocular lens
- Preservative free sterile solutions (hydroxy propyl methyl cellulose)
- Hyaluronidase solution
- Linen
- Gloves
- Cotton etc

# DOCUMENTATION

- Consent – high risk informed consent
- Discharge summary
- Patient address proof

# LEGAL ISSUES

## COMMON REASONS FOR LAW SUITS:

1. Post operative complications
2. Wrong side surgeries
3. Mass infections

## DEFENCES FOR OPHTHALMOLOGISTS:

1. Documentation
2. Checklist
3. Record maintenance
4. Modern Sterilisation techniques
5. Mentioning the review dates in discharge

- “Cataract surgery with faulty equipment blinds four people in Mumbai”

Reference :

-Wednesday, 2 February 2011 - 12:15am IST | Place: Mumbai | Agency: dna



- “India cataracts scandal: Arrest over 'botched' surgery”.

Reference:

-6 December 2014- India-BBC

# CONCLUSION

- Timely and efficient organising of camps along with appropriate patient care through out the length of hospital stay is required.
- Highly equipped infrastructure and facilities are to be maintained.
- Assured precautions are to be taken for prevention of infections.
- As the disease burden of cataract is still high, need for participation of more NGOs and hospitals are required.

# BIBLIOGRAPHY

1. G.D. Kunders. Hospital planning and management. 15<sup>th</sup> edition. Delhi: Mc Graw Hill Publications; 2013.
2. Mc Gibony MD. Principles of Hospital Administration. 2<sup>nd</sup> edition. New York: GP Putnams sons; 1969.



After Surgery

THANK YOU