

# SEVENTH-DAY ADVENTIST MEDICAL CENTRE, BANGALORE

Dr. Narendra Rao, MD

#8, Spencer Road, Frazer Town, Bangalore 560005 / sdamcbangalore@gmail.com

## UPGRADING INFECTION CONTROL IN OPERATING ROOMS

### Introduction

In the year 2017, an unusual, delayed surgical site infection involving 42 patients over a period of 6 months, occurred. We present the process of controlling this outbreak and thus improving our quality of care.

### History

Seventh-day Adventist Medical Centre is a 50 bedded multispecialty hospital in Bangalore performing about 750 major surgeries and 1500 deliveries each year. 11.6% of the patients operated between January and June 2017 came back with discharge from the surgical site. The incubation period was between 9-134 days.

### Aim

To control the delayed surgical site infection outbreak in SDA Medical Centre, Bangalore.

### Investigative Processes

- Constituted an expert committee consisting of Hospital Infection Control (HIC) team, all surgeons, HIC consultants from 5 large health care organizations.
- Convened several HIC meetings with all surgical staff
- Identified potential sources of infection
- Sent specimens /swabs for culture and sensitivity

### Findings

- Only one tissue sample grew Mycobacterium abscessus.
- Water samples from the underground tank grew Coliforms and other organisms.

### Treatment

Standard treatment was given for all cases infected with atypical Mycobacteria. At 15 months follow up, 30 were asymptomatic, 11 were lost to follow up, and one is currently on treatment.

### Corrective Measures

- Strict monitoring of infection control policies in the operating room by a dedicated HIC Team
- Stopped the use of glutaraldehyde to sterilize sharp instruments
- A direct supply of water to Operating Rooms was provided from the bore well, bypassing the underground water storage tank
- A Reverse osmosis water treatment facility installed
- Changes made in the design of the Operating Rooms
- CSSD redesigned and new autoclave installed

### Activities / Highlights



Post-op wound



Surgery in progress



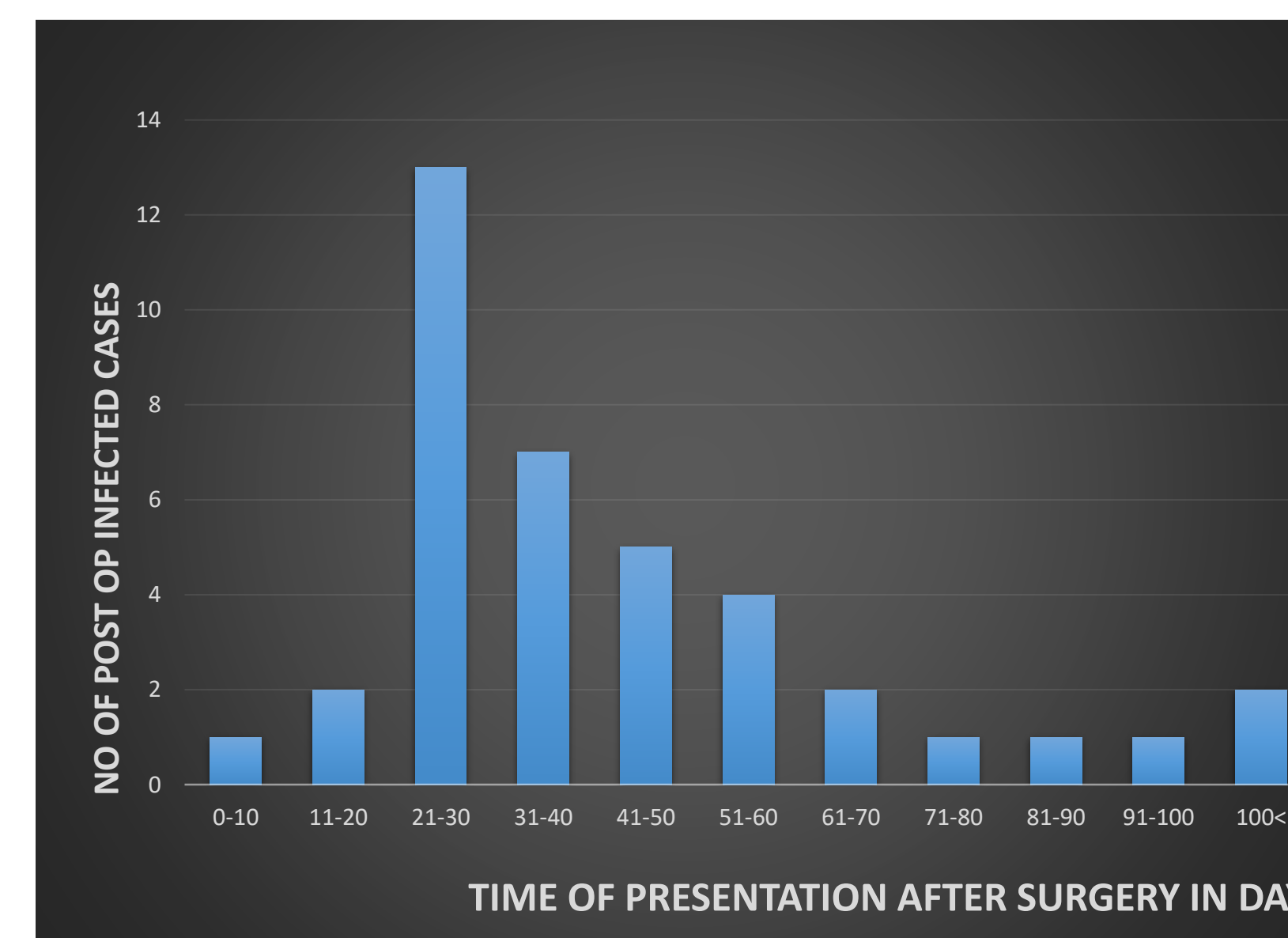
New Autoclave



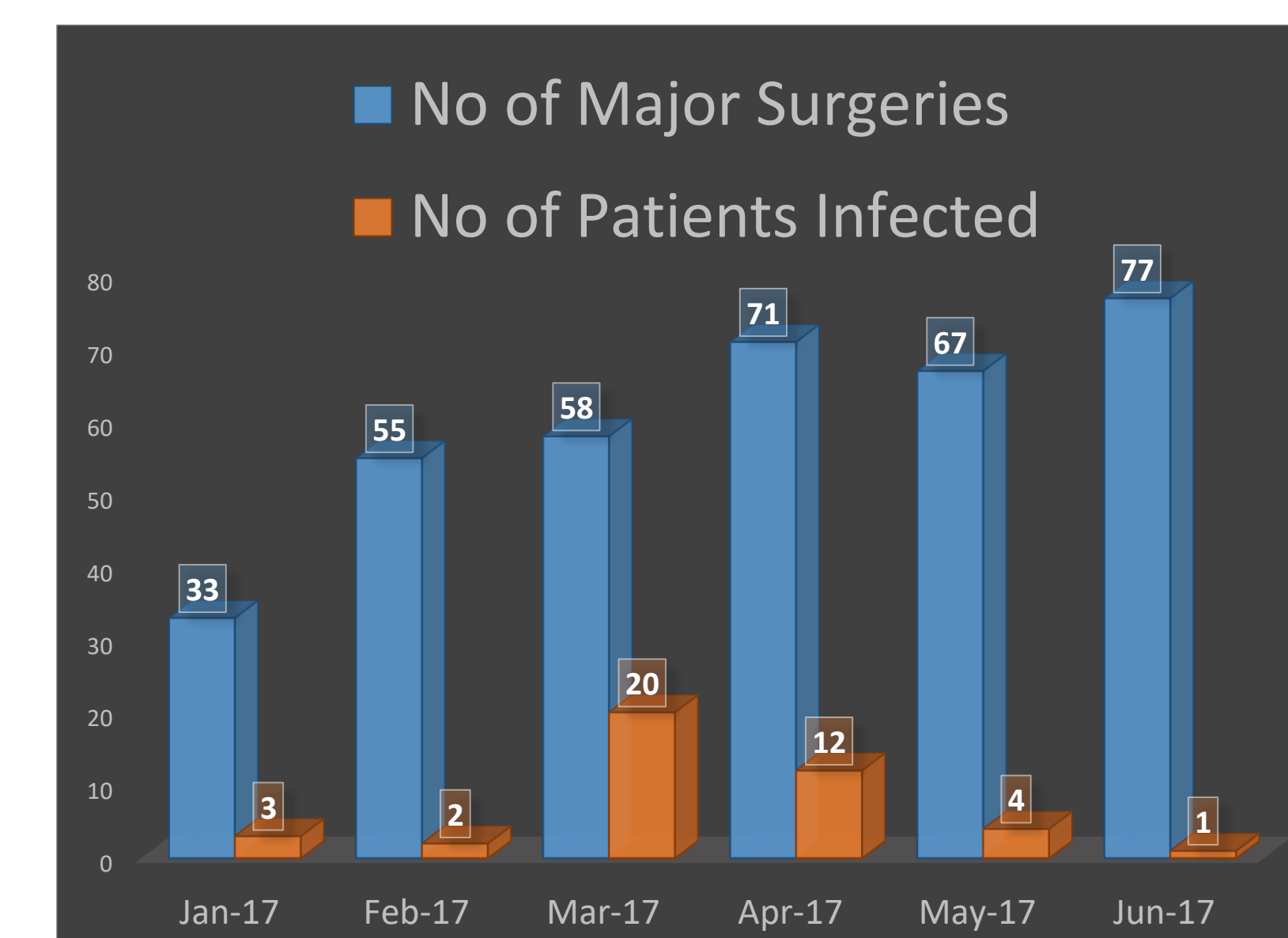
Reverse Osmosis Water Plant



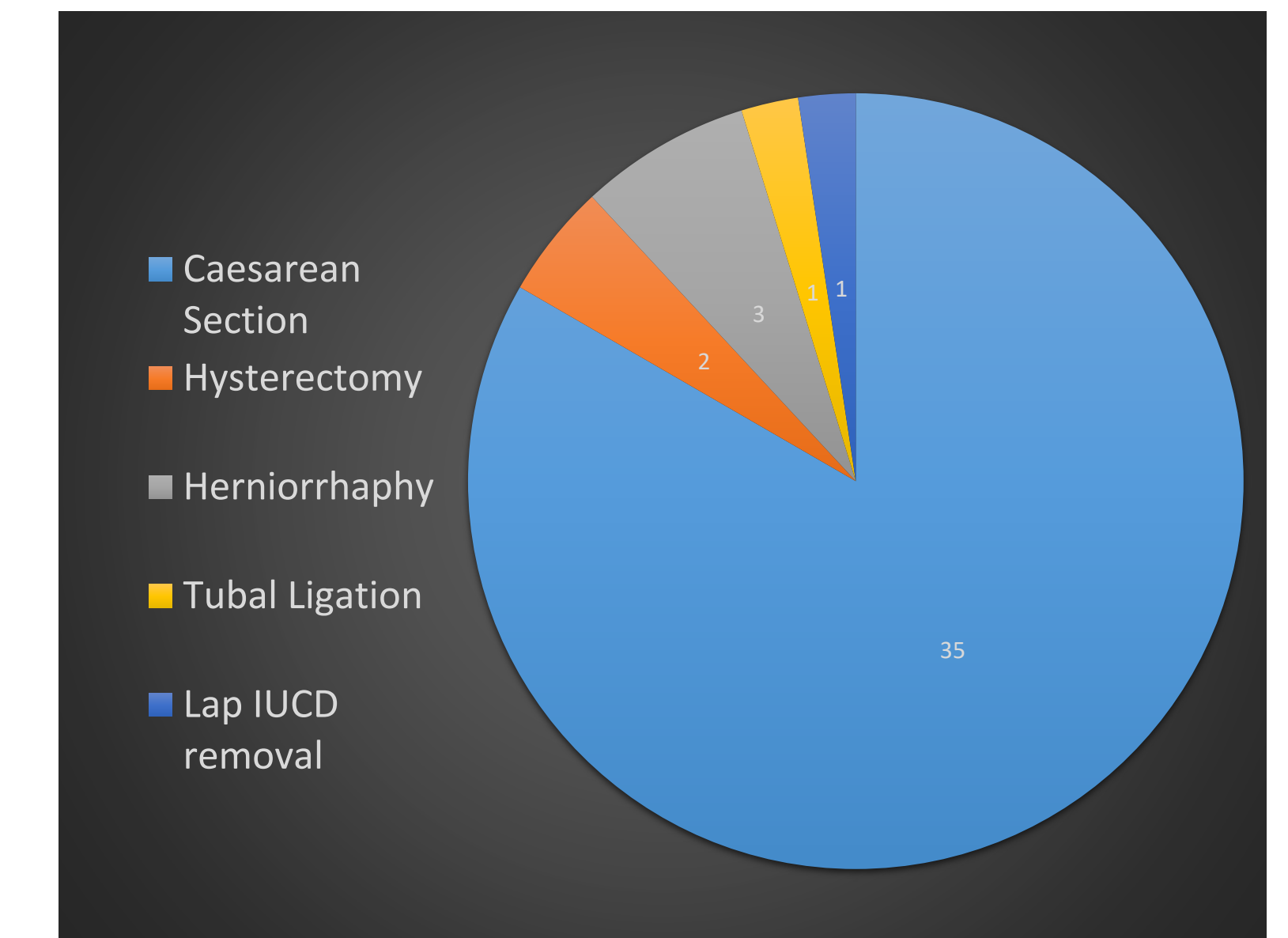
Instrument Washing



Post-op Infection time of presentation



Infected vs Non- infected Surgeries



Distribution of Surgical Site Infection

### Lessons Learnt

- Need for establishing a good, robust monitoring system and HIC team to prevent dire consequences
- Teamwork with input of qualified specialised consultants crucial for containing infection
- Lack of viable alternatives prevented timely closing down of operating rooms.