Internship
at
Cloudnine Hospital, Bangalore

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ABOUT CLOUDNINE HOSPITAL

Hospital Profile:

Cloud Nine is a single specialty hospital chain for Maternal and Child Care. It was co-founded by Dr. Kishore Kumar, a world renowned Neonatologist in 2007.

Seeing the abundant, insanitary government hospitals and poorly operated private nursing homes in the nation, Dr. Kishore Kumar together with his team of three co-founders chose to focus on providing quality Maternal, Neonatal and Pediatric care. Thus came into being CLOUDNINE HOSPITALS- a venture of the KIDS CLINIC INDIA, PVT LTD owned by Dr. Kishore Kumar and Scrips N Scrolls India- a Company into property development and investments.

Portfolio of services offered:

- Pregnancy Care
- High Risk Pregnancy Care
- Gynaecological Care
- Infertility Care
- Neonatal Care and New Born Intensive Care
- Paediatric Care

Vision:

To be the kind of leader in the space of women and health that India has not witnessed yet, by providing premier quality healthcare to women and children.

Aim:

Bridging the ever- widening gap between Indian and International standard care for mothers and babies.

Core philosophy:

Maternity is wellness and not an illness

Values:

- **Customer centricity**
- **Respect for the employee**
- **Bias for action**

Customer Promise: "We will deliver an experience that makes our customers feel cared for and happy"

Investors:

- Matrix Partners, India
- Sequoia Capital

Branches:

- **7 Cloudnine Hospitals**: Jayanagar, Old Airport Road and Malleshwaram in Bangalore, T.Nagar in Chennai, Mumbai, Pune and Gurgaon
- **1 Cloudnine Children's Hospital**: Jayanagar Bangalore
- **1 Cloudnine Fertility**: J P Nagar, Bangalore
- **5 Cloudnine Clinic-** Whitefield, AECS, HRBR Layout, Sahakarnagar, Frazer Town, Bangalore

Other verticals of Cloudnine:

Sure Fertility: Provides specialized Fertility Services for couples who have difficulty conceiving. Stand-alone centre is at JP Nagar

- Separate Department: Sure Fertility as a separate department is present at all Units of Cloudnine.

Cryonine:

Cloudnine provides stem cell preservation facility under the brand Cryonine.

For future requirement, interested parents can book to preserve the Umbilical cord blood and tissue of their new born baby for 21 years, and insured for a sum of Rs. 10 lakhs.

Floor wise facility distribution:

FOURTH FLOOR:

- Admin. Office
- Corporate Office
- Cafeteria

THIRD FLOOR:

- Luxury Rooms
- Suite Rooms
- Baby Aquarium

SECOND FLOOR:

- Hearing Test Room
- Baby Aquarium
- Luxury Rooms

FIRST FLOOR:

- OBG Emergency
- Induction Room
- NICU
- Isolation Room
- CSSD
- NICU Lounge
- Labor Room
- Feeding Room

0 FLOOR (“M” FLOOR):

- OBG OPD
- USG Rooms
- Mom & Me
- Meri Yaadein
- Au Bon Pain
- Parent Support Classes Room

GROUND FLOOR:

- Reception
- Pediatric OPD
- Pediatric Emergency
- Fertility Center
- Baby Weighing Area
- Feeding Room
- Pharmacy

- Corporate Desk
- Cryonine
- Customer Relations Room

BASEMENT:

- Medical Records Department
- Store room
- Blood Bank
- In Patient Pharmacy
- Laboratory
- Sample Collection Room
- Housekeeping room
- Linen room

Departments Worked:

A. Obstetric Ultrasonography Department

B. Housekeeping department

Problems and issues in the departments:

A. Obstetric Ultrasonography Department:

- Long waiting time
- Improper scheduling of radiologists' shifts
- Improper time scheduling for rescan cases
- Insufficient time slot for NT and Anomaly scans
- No prior intimation to the patients in case of cancelled or delayed appointment
- More number of NT and Anomaly scans

B. Housekeeping department:

- Untrained linen executives
- Shortage of linen in linen room
- No proper system of distribution of linen
- Records not maintained properly

Observations and learning in Obstetric USG department:

- Process flow of the Obstetric USG department was observed
- Working in the department helped in learning about the different types of Obstetric scans and their time durations.

Observations and learning in Housekeeping department:

- Process of receiving and distributing the clean linen and sending back the soiled linen was observed.
- Problems due to an ineffective linen distribution system were observed
- Loop holes in the process which can lead to linen loss were identified
- How we can control the inventory by implementing a proper linen distribution system was learned

INTERNSHIP PROJECT

TO ANALYSE THE OBSTETRIC USG DEPARTMENT FUNCTIONING AND UTILISATION OF SERVICES

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Literature Review:

An ultrasound scan is a diagnostic technique which uses high-frequency sound waves to create an image of the internal organs. A screening ultrasound is sometimes done during the course of a pregnancy to check normal foetal growth and verify the due date. Ultrasounds may be performed at various times throughout pregnancy for different reasons:
In the first trimester:

- to establish the dates of a pregnancy
- to determine the number of foetuses and identify placental structures
- to diagnose an ectopic pregnancy or miscarriage
- to examine the uterus and other pelvic anatomy
- in some cases to detect foetal abnormalities

Mid-trimester: (sometimes called the 18 to 20 week scan)

- to confirm pregnancy dates
- to determine the number of foetuses and examine the placental structures
- to assist in prenatal tests such as an amniocentesis
- to examine the foetal anatomy for presence of abnormalities
- to check the amount of amniotic fluid
- to examine blood flow patterns
- to observe foetal behaviour and activity
- to examine the placenta
- to monitor foetal growth

Third trimester:

- to monitor foetal growth
- to check the amount of amniotic fluid
- as part of other testing such as the biophysical profile
- to determine the position of a foetus
- to assess the placenta

Consultation with an expert in maternal foetal medicine for pregnant women with risk factors for adverse perinatal outcome .A pregnant woman receiving antenatal care may present with

signs and symptoms and/or predisposing factors for adverse perinatal outcomes. It is essential for these pregnant women to have timely access to assessment and adequate antenatal testing and help in planning a healthy delivery, thereby preventing complications.

Antenatal testing:

Antenatal care includes examinations, evaluations, and interventions that have been shown to reduce both morbidity and mortality rates. The effectiveness of antenatal testing strategies depends on timely application and interpretation of tests, leading to the recognition of a potential problem and effective clinical action.

A clearly defined wait time strategy in obstetrics and gynaecology is essential to avoid the potentially negative effect that overly long wait times can have on patient care. Inappropriately long waits may adversely affect health outcomes and, in some cases, result in mortality.

Objectives:

- To understand the functioning of obstetric USG department.
- To take a close look at current situation and identify opportunities for improvement.
- To identify reason for prolong waiting time.
- To give recommendations and measure the outcome.

Department Overview:

Total Number of Radiologists available: 5

Table 1

S.no	Doctor's name	Mon	Tue	Wed	Thur	Fri	Sat	Sun
1	DR.A	OFF	OFF	OFF	OFF	OFF	8:00-2:00	OFF
2	DR.B	OFF	8:15-2:00	OFF	8:15-2:00	8:15-2:00	OFF	OFF
3	DR.C	8:00-4:00	8:00-4:00	8:00-4:00	OFF	8:00-4:00	8:00-4:00	OFF
4	DR.D	5:00-8:00	5:00-8:00	5:00-8:00	5:00-8:00	5:00-8:00	5:00-8:00	OFF
5	DR. E	6:00-7:30	OFF	6:00-7:30	6:00-7:30	6:00-7:30	6:00-7:30	OFF

SHIFTS OF RADIOLOGISTS

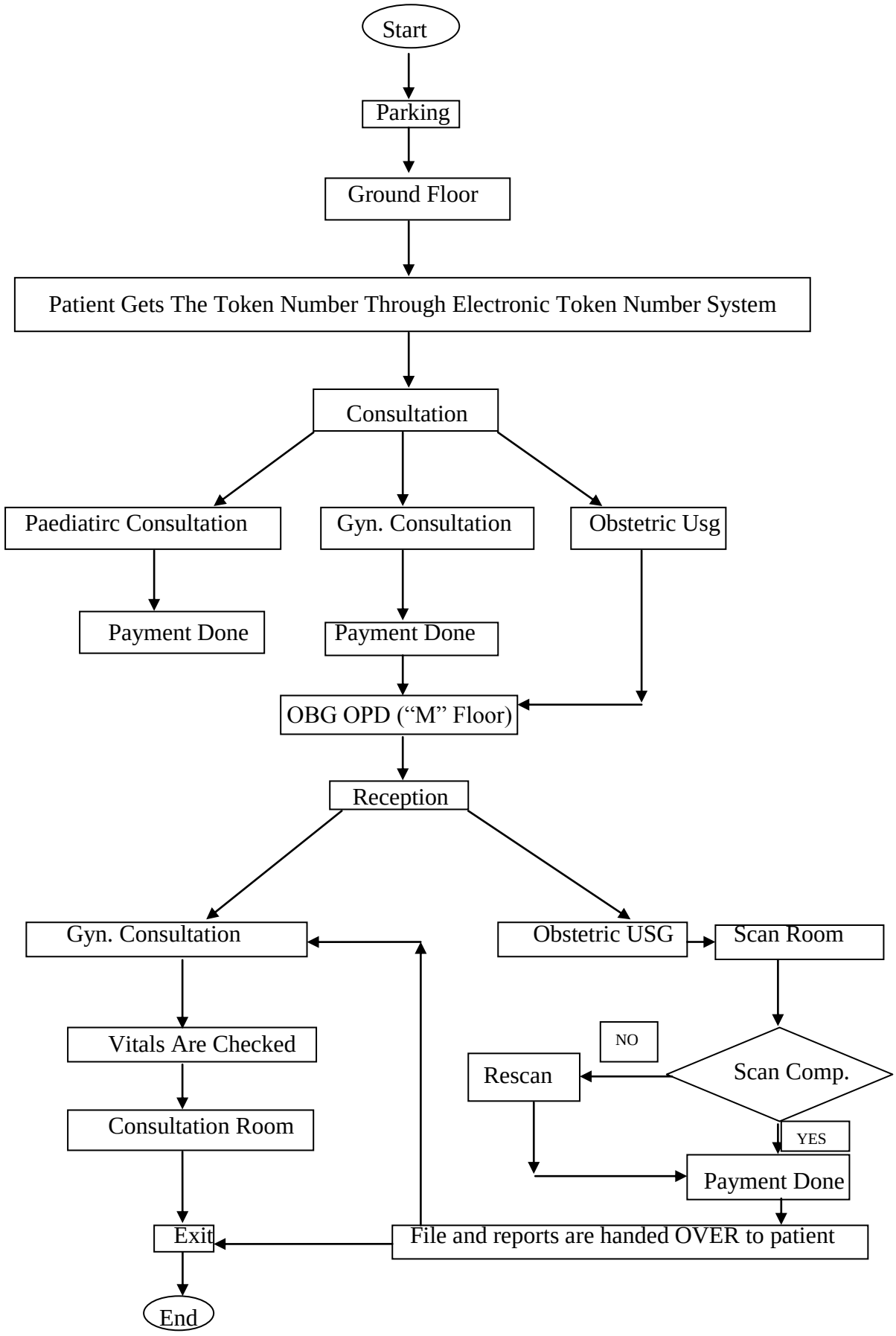
Number of Scan Rooms: 2

Table 2

S.no	Type of Scan	Duration	Right time for scan
1	EARLY PREGNANCY &DATING SCAN	15	7-8 Weeks
2	NT & NB SCAN	25	12-13 Weeks
3	NT & NB SCAN FOR TWINS	40	12-13 Weeks
4	NT & NB SCAN FOR TRIPLETS	60	12-13 Weeks
5	ANAMOLY SCAN	30	18-22 Weeks
6	ANAMOLY SCAN FOR TWINS	40	18-22 Weeks
7	ANAMOLY SCAN FOR TRIPLETS	60	18-22 Weeks
8	GROWTH SCAN	20	30-32 Weeks
9	GROWTH SCAN FOR TWINS OR BPP	25	30-32 Weeks
10	GROWTH SCAN FOR TRIPLETS	30	30-32 Weeks

TYPES OF SCAN AND DURATION

Process Flow: Figure 1



Data Collection:

Number of patients to each Radiologist:

- The average number of patients for each radiologist was calculated. Data was entered in a check list (Ms-excel).

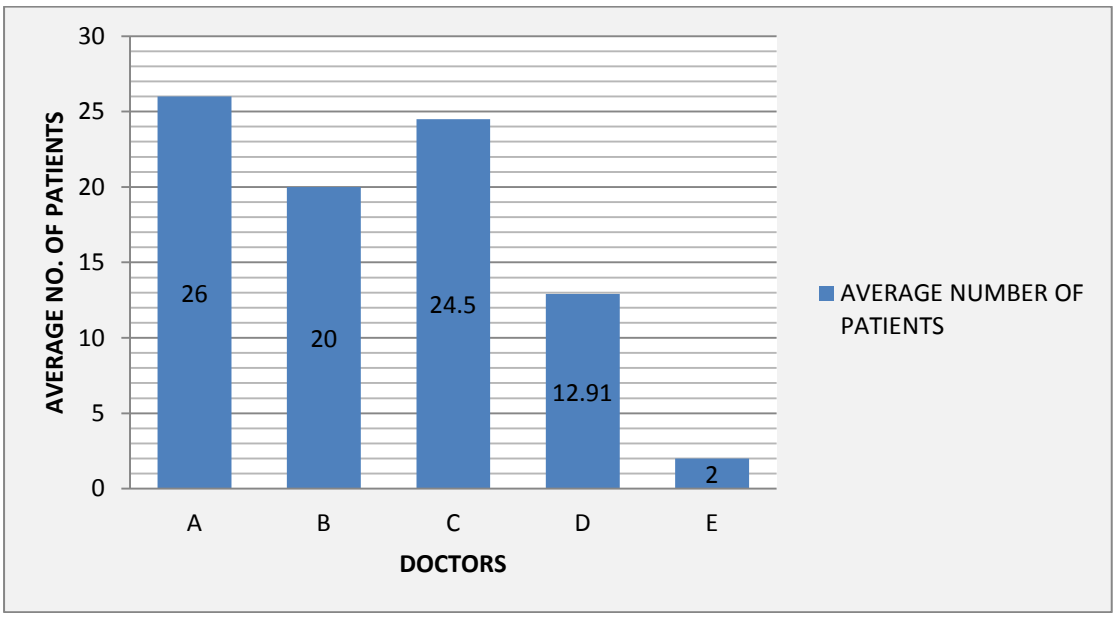
  Table 3

Doctor	Total Number Of Patients
A	52
B	120
C	245
D	155
E	20

TOTAL NUMBER OF PATIENTS TO EACH RADIOLOGIST

Data Analysis and Interpretation:

Figure 2



Graph showing average number of patients to each radiologist

From the above graph we can interpret that:

- Dr. A is doing 26 scans in a day and coming once in a week.
- Dr. B is doing 20 scans in a day and coming 3 days in a week.
- Dr. C is doing 25 scans in a day and coming 5 days in a week.
- Dr. D is doing 13 scans in a day and coming 6 days in a week.
- Dr. E is doing 2 scans in a day and coming 5 days in a week.

- Dr. B and Dr. C are having higher patient load and both the Doctors are available in the morning.
- Dr. D and Dr. E are having lesser patient load and both the doctors are available in the evening.
- Dr. A and Dr. C both the doctors are having maximum patient load and are available in the morning on Saturdays.

CONCLUSION AND RECOMMENDATIONS:

1. There were 2 scan rooms and both the radiologists (Dr. B and Dr. C) having maximum patient load are in the morning shift, resulting in overcrowding and both radiologists (Dr. D and Dr. E) having less patient load are in the evening shift.

2. Another reason for delay is more number of NT and anomaly scan.
    - More number of NT and Anomaly scan increases the waiting time. Therefore, the waiting time increases when more number of NT and Anomaly scans is taken.

3. Rescans:
    - Many patients has to go for **rescan** because the position of baby is not allowing for proper scanning, thus rescans causing further delays and bottlenecks.

RECOMMENDATIONS:

1. A change in the shifts of the radiologists was recommended
   - Morning shift: Dr. C and Dr. E
   - Evening shift: Dr. B and Dr. D.

2. Restricting the number of NT and Anomaly Scans:
   - The number of NT and Anomaly scans was restricted to 5, as only 20min slot was kept for each scan and NT and Anomaly scans takes more than 20min

3. A separate time slot was recommended for rescans.
   - The time slot for scans was 8:00am to 4:00pm, in that time slot only last one hour i.e.3:00pm to 4:00pm was allotted to rescan patients and no NT and Anomaly scan was scheduled during this time

References:

- **Children, young people and maternity services**
  Health Building Note 09-02:
  Maternity care facilities
  https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/147876/HBN_09-02_Final.pdf